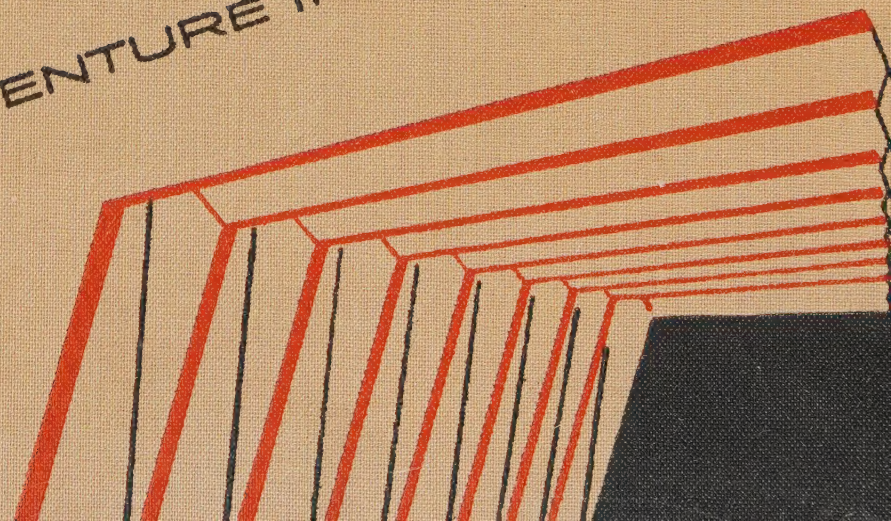
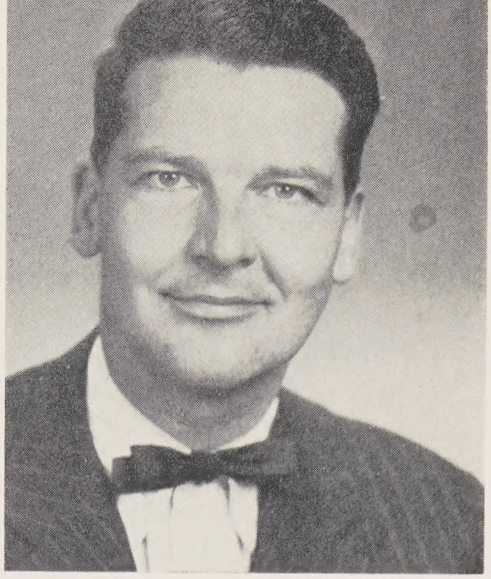
E 108 00062 6

ADVENTURE IN ARCHITECTURE





WHITNEY STODDARD received his Ph.D. from Harvard in 1941. He has held the Carnegie Grant, the Harvard-Sachs Fellowship and an Advanced Research Fulbright. He is presently Professor of the History of Art at Williams College.

Letterpress U.S.A.

WITHDRAWN
FROM THE
CARL B. YLVISAKER LIBRARY
Concordia College, Moorhead, MN

Digitized by the Internet Archive
in 2022 with funding from
Kahle/Austin Foundation

https://archive.org/details/adventureinarchi0000whit

ADVENTURE IN ARCHITECTURE



BELL BANNER AND FAÇADE OF PROPOSED SAINT JOHN'S ABBEY CHURCH

ADVENTURE IN ARCHITECTURE

BUILDING THE NEW SAINT JOHN'S

Text and Pictures by

WHITNEY S. STODDARD

Plans by

MARCEL BREUER



LONGMANS, GREEN and COMPANY

NEW YORK LONDON TORONTO 1958

NA
5235
C658

LONGMANS, GREEN AND CO., INC.
55 FIFTH AVENUE, NEW YORK 3

LONGMANS, GREEN AND CO., LTD.
6 & 7 CLIFFORD STREET, LONDON W 1

LONGMANS, GREEN AND CO.
20 CRANFIELD ROAD, TORONTO 16

ADVENTURE IN ARCHITECTURE

COPYRIGHT © 1958
BY WHITNEY S. STODDARD

ALL RIGHTS RESERVED, INCLUDING THE RIGHT TO REPRODUCE
THIS BOOK, OR ANY PORTION THEREOF, IN ANY FORM

PUBLISHED SIMULTANEOUSLY IN THE DOMINION OF CANADA
BY LONGMANS, GREEN AND CO., TORONTO

FIRST EDITION

LIBRARY OF CONGRESS CATALOG CARD NUMBER 57-13215

PRINTED IN THE UNITED STATES OF AMERICA
VAN REES PRESS • NEW YORK

Acknowledgments

The research for this book took me to Saint John's Abbey twice, once in the spring and once in the fall of 1956. Both of these visits were made pleasant and fruitful by the generous cooperation of the monks who gave their time freely in the effort to introduce me to the life of a twentieth-century Benedictine monastery. Abbot Baldwin W. Dworschak often interrupted his crowded schedule to discuss the complex activities of the Abbey, its university, and its many dependencies. He guided me through the areas around Collegeville, Minnesota, and showed me sites of historical importance to Saint John's, such as the shore of the Mississippi in St. Cloud where the five monks of the original mission located in 1856. My contacts with Abbot Baldwin were contacts with a man who combines the abilities of a spiritual and administrative leader with a penetrating sensitivity to art forms.

Father John Eidenschink, subprior, supplied me with copies of the correspondence between the Abbey and Marcel Breuer and with the minutes of all committee meetings related to the architectural project. Father Walter Reger, historian and alumni secretary at Saint John's, read rough drafts of the first chapters and helped me separate the trees from the leaves. Father Colman Barry who wrote the centenary history of Saint John's, *Worship and Work*, gave me many helpful suggestions. Father Michael Marx was kind and patient in his response to my questions about the church liturgy, while his brother, Father Paul, allowed me to read the manuscript of his forthcoming book on Father Virgil Michael, the leader of the liturgical revival in America. Father Fintan Bromenshenkel conducted me on tours of the entire plant and answered innumerable questions about the existing buildings. Fathers Joachim Watrin, Jeremy Murphy, Christopher Bayer and many others made my visits both informative and comfortable.

Frater Kenneth Russell not only lived through the typing of rough drafts from tape recordings but also always had encouraging suggestions and criticisms. During a short meeting in New York in Marcel Breuer's office, Father Cloud Meinberg, who had just returned from Europe, read parts of the manuscript and offered valuable suggestions.

37537



ACKNOWLEDGMENTS

In matters of photography Paul A. Dufour of the Art Department at Saint John's and Brother Matthew Holiday helped me considerably, while Carl Fritz, a photographer in St. Cloud, cooperated by developing the negatives and making many of the enlargements.

Marcel Breuer and his associates turned over their files of correspondence with the monks; more important, they gave me access to the preliminary sketches and plans for the Saint John's project. The cooperative spirit of both architects and monks made it possible to document and to understand the evolution of the plans for the new Saint John's Abbey.

To the final stages of the book's preparation several individuals contributed time, work, and patience. Mrs. Frank Thoms deciphered copy and typed the manuscript. Albert Keep, Herbert Varnum (Williams, '59), and Peter Ferguson (Williams, '60) ably assisted in the preparation of photographs. Tony Bradley (Williams, '57) transcribed the plan of the medieval Abbey at Fontenay. Most important, my colleague, Professor Don Gifford, saw me through the final preparation of the text. Finally, to Edward E. Mills of Longmans, Green, the author is grateful for suggesting the idea for *Adventure in Architecture*. For the sensitive attention given to the publishing of this book I especially wish to thank Mr. John L. B. Williams and Mrs. Dorothy Upjohn Lewis.

Williamstown, Massachusetts
1 *January* 1958

Contents

I. A Program Formulated: An Architect Selected *page fifteen*

II. Architect and Patron: Evolution of a Plan *page twenty-seven*

III. New Monastic Wing *page forty-six*

IV. Visual Arts in the New Wing *page seventy-four*

V. Proposed Church *page eighty-four*

VI. Plan for the Future *page one hundred and three*

VII. Refinements on a Major Theme *page one hundred and twelve*

In memory of my
Mother

Illustrations

(All photographs are by the author unless otherwise stated)

Bell banner and façade of proposed Saint John's Abbey church (Warren Reynolds, Infinity, Inc., Minneapolis) *frontis.*

1. Comprehensive model of the new Saint John's Abbey, its monastic and academic buildings 14
2. Saint John's Abbey and University (Abbey photograph) 14
3. Abbot Baldwin W. Dworschak, O.S.B. (Ryan Studios, Minneapolis) 17
4. Marcel Breuer (Homer Page, New York) 17
5. Building committee of Saint John's (Warren Reynolds, Infinity, Inc., Minneapolis) 17
6. Saint John's in 1883 (Father Isidore, Saint John's) 21
7. Saint John's in 1956, with new monastic wing 21
8. Experimental plan (July 2, 1953) 37
9. More developed plan (July 31, 1953) 37
10. Breuer sketch: plan of church, baptistry, and bell banner (1953) 39
11. Breuer sketches (1953): elevation of church and bell banner; plan of church and cloisters 39
12. Breuer drawing: church, chapter house, bell banner (1953) 39
13. Plans of lower and main church with notations by Breuer (November, 1953) 40
14. Sections of church with notations by Breuer (November, 1953) 41
15. Structural sections with notations by Pier Luigi Nervi (1953) 42
16. Structural study by Pier Luigi Nervi 42
17. Breuer presenting comprehensive plan to Abbot and monastic community (January 28, 1954) (Abbey photograph) 44

18. Abbot Baldwin blessing site for new monastic wing (May 19, 1954) (Abbey photograph) 47
19. View of monastic grounds and Lake Sagatagan from new wing 51
20. Monastic wing (south side) 51
21. Abbey of Fontenay, France, twelfth century (east side) 51
22. Monastic wing from northwest; entrance (Warren Reynolds, Infinity, Inc., Minneapolis) 52
23. Monastic wing from south side 53
24. Plan of monastic wing and proposed church, main floor (Breuer photograph) 54
25. Plan of Fontenay, France (after Aynard from Begule's *L'Abbaye de Fontenay*) 55
26. Third floor plan: monastic wing and church (Breuer photograph) 56
27. Basement plan: monastic wing and church (Breuer photograph) 57
28. Lobby of new wing (Warren Reynolds, Infinity, Inc., Minneapolis) 58
29. Lobby, looking into monastic enclosure 58
30. Hallway and inscriptions 59
31. Father Roman Homar on his porch 59
32. Father Vitus Bucher in his room 60
33. Guest's bedroom (Warren Reynolds, Infinity, Inc., Minneapolis) 60
34. Fathers' recreation room (Warren Reynolds, Infinity, Inc., Minneapolis) 61
35. Brothers' recreation room 62
36. Clerics' recreation room 63
37. Study hall for clerics 63
38. Clerics' dormitory (Warren Reynolds, Infinity, Inc., Minneapolis) 63
39. Abbot's reception room 65
40. Passageway from sacristy; center inscription (Warren Reynolds, Infinity, Inc., Minneapolis) 65
41. Sacristy 65
42. Abbot's private chapel (Warren Reynolds, Infinity, Inc., Minneapolis) 67
43. Monastic wing (south side) 69
44. Monastic wing (detail) 69
45. Granite bricks (detail) 69
46. Fireplace in Fathers' recreation room 71
47. Main staircase 71
48. Detail of staircase 71

49. Fireplace in Brothers' recreation room 71
50. White cross window by Josef Albers 75
51. Guests' lounge with photomural 75
52. Crucifix by Father Cornelius Wittmann (1880) 79
53. Detail of crucifix 79
54. Sitting area designed by Father Joachim Watrin and constructed by clerics 79
55. Chalices by Father Hugh Witzman and Abbot Baldwin Dworschak 81
56. Crucifix, tabernacle, and candlesticks designed and made by the monks 81
57. Art Department 81
58. Cleric at work on calligraphy 81
59. Model of monastic complex from northeast 87
60. Old quadrangle and church (1870's, 1880's) 87
61. Monastic wing, church, chapter house 87
62. Present church (consecrated in 1882): interior 89
63. Proposed church (interior from balcony) (Abbey photograph) 89
64. Interior of proposed church 93
65. Conques, France, eleventh and early twelfth centuries 93
66. Vézelay, France, early twelfth century 93
67. Model from northwest 95
68. Procession from new monastic wing 95
69. Model from southeast (Breuer photograph) 95
70. Proposed bell banner and façade of church (1954) 97
71. Detail of façade (1954) 97
72. Paray-le-Monial, France (1100) 97
73. Proposed cloister of Saint John's 101
74. Cloister of Fontenay, France, twelfth century 101
75. Six stages of building the new Saint John's (Breuer photograph) 105-6
76. Comprehensive plan of Abbey and University (Breuer photograph) 109
77. Model of comprehensive plan 109
78. Breuer's recent design of bell banner (1956) 111
79. New site plan (Breuer photograph) 115
80. New model from northeast (Warren Reynolds, Infinity, Inc., Minneapolis) 115
81. Plan of main church (1957) (Breuer photograph) 116

12

82. Plan of church, balcony level (1957) (Breuer photograph) 119
83. Plan of lower church (1957) (Breuer photograph) 119
84. Longitudinal and cross sections (1954) (Breuer photograph) 120
85. Longitudinal and cross sections (1957) (Breuer photograph) 120
86. New model from north (Warren Reynolds, Infinity, Inc., Minneapolis) 123
87. North and east elevations (1957) (Breuer photograph) 123
88. New model from southeast (Warren Reynolds, Infinity, Inc., Minneapolis) 124
89. South and west elevations (1957) (Breuer photograph) 124
90. Reflected ceiling plan (1957) (Breuer photograph) 126
91. New model (Breuer photograph) 126

ADVENTURE IN ARCHITECTURE



1. COMPREHENSIVE MODEL OF THE NEW SAINT JOHN'S (VIEW FROM SOUTH)

2. SAINT JOHN'S ABBEY AND UNIVERSITY (AIR VIEW FROM NORTHEAST)



A Program Formulated: An Architect Selected

THIS IS THE STORY OF AN ARCHITECTURAL ADVENTURE. IT BEGINS WITH A MONASTIC community's consideration of a small brick annex—a project which has evolved, through the construction of a large monastic wing, into a comprehensive plan for a new monastery: nineteen new buildings. It is the story of an abbot who, like Saint Benedict himself, conceives of the monastic community as one in which each member contributes his peculiar ideas or talents to the common goals. It is the story of a unique method of selecting an architect; it is also the story of a happy and sympathetic cooperation between a sensitive community and a brilliant architect. In the course of this story an exciting plan for a community's architectural growth has evolved; at the same time, by trial and error, each member of the

community has grown in his artistic sensibilities through his participation in the monastery's architectural adventure.

The story begins very simply in 1951 during a regular meeting of the Abbot and the Senior Council at the Benedictine monastery of Saint John the Baptist in Collegeville, Minnesota. Abbot Baldwin Dworschak, O.S.B. (see illustration 3), and the Senior Council met, as usual, to consider the problems of finance and administration, to discuss the best methods of carrying out the rule of Saint Benedict. Among other problems there was a special one, which had bothered the entire monastic community for some time: the proper care of the aged and infirm Fathers and Brothers. Since the whole conception of monastic life as a "family life" is basic to spiritual and physical health from the Benedictine point of view, the Abbot and his advisors were disturbed by the lack of adequate facilities for the care of retired monks. Though the retired monks are no longer able to perform their educational, missionary, or administrative duties in the work of the Abbey, their spiritual duties, which are primary in monastic living, have not ended. Thus the Abbot and his Council were confronted with the problem of improving conditions for the physical care and well-being of the retired monks without isolating them from their brethren, without making their attendance at monastic observances difficult.

RULE OF SAINT BENEDICT (A.D. 530)

CHAPTER 36: *On the Sick Brethren*

For these sick brethren let there be assigned a special room and an attendant who is Godfearing, diligent and solicitous. Let the use of baths be afforded the sick as often as may be expedient....

In 1951 the retired Fathers and Brothers lived in the old south wing of the monastery, which had been rebuilt in the 1920's. This wing, the Senior Council felt, did not provide adequate facilities for the care of the aged monks; yet to improve those facilities by a further rebuilding of the south wing would commit the monastery to the expensive operation of saving exterior walls, and any attempt to redesign the interior would be strait-jacketed by existing walls and window openings. It was therefore decided to consider a new wing, which would include rooms with baths, a small chapel, a porch, a small kitchen, and visiting rooms. Since most of these monks, who serve as pastors in nearby parishes, retire to Saint



3. ABBOT BALDWIN W. DWORSCHAK, O.S.B.



4. MARCEL BREUER

5. BUILDING COMMITTEE OF SAINT JOHN'S: (*left to right*) FATHERS CLOUD MEINBERG, MATTHEW KIESS, JOACHIM WATRIN, ADELARD THUENTE, BROTHER HUBERT SCHNEIDER, FATHERS FINTAN BROMENSHENKEL, JOHN EIDENSCHINK



John's Abbey, the Council felt that ample provision should be made for visitors, such as former parishioners and relatives.

In some way the new wing had to be attached to the monastic buildings, so that the retired monks who were ailing could worship in the Abbey church whenever possible, and so that they could be visited and watched over by the Abbot and the rest of the monastic community. The site for the new wing presented a problem: if it were placed to the south, toward Lake Sagatagan, it would be too close to the road and too noisy for the monks (see illustration 2); on the other hand, if the wing extended in a diagonal, it would damage the appearance of the south fronts of the existing monastic buildings.

CHAPTER 37: *On Old Men and Children*

Although human nature itself is drawn to special kindness towards these times of life, that is, towards old men and children, still the authority of the Rule should also provide for them. Let their weakness be always taken into account, and let them by no means be held to the rigor of the Rule with regard to food. On the contrary, let a kind consideration be shown to them, and let them eat before the regular hours.

As this meeting in 1951 drew to a close, it became clear that more study was imperative. The Abbot appointed a building committee (see illustration 5). This committee had as its immediate concern a solution to the problem of adequate housing for the retired monks. But it had a long-range concern as well: the committee was to study methods of improving the physical plant of the monastery in its entirety. The formation of this committee set the stage for a solution to the immediate and urgent problem; at the same time it set the stage for the community's fuller consideration of the architectural form of a twentieth-century monastery.

The committee, as appointed (see illustration 5), was composed of six members who, in themselves, represented many facets of the monastic and educational life of Saint John's. The Abbot was fully occupied with his multiple role as superior of the monastery and of several mission priories, and as president of the University. He could not spare time to serve on the committee; he appointed his subprior, Father John Eidenschink, O.S.B., to serve as chairman. Father Matthew Kiess, O.S.B., chairman of the Chemistry Department, was named because he was

interested in building, and had recently served as a member of the committee that had planned the heating plant. Father Adelard Thuente, O.S.B., professor of biology, was asked to serve, since, as a prefect in the University, he would understand the needs of the students. The fourth member, Father Fintan Bromenshenkel, O.S.B., was a mathematics instructor and a prefect in the College Preparatory School. Father Cloud Meinberg, O.S.B., head of the Department of Art and himself a trained architect with a degree from the University of Illinois, could be a most helpful member of the committee since he could deal directly with the disciplines of imaginative architecture. Finally, there was Brother Hubert Schneider, O.S.B. Brother Hubert is a skilled craftsman in charge of the carpentry shop; he could utilize his knowledge of materials, a knowledge of real importance in any building program; and at the same time he would represent the Brothers.

CHAPTER 3: *On Calling the Brethren for Counsel*

Let the brethren give their advice with all the deference required by humility, and not presume stubbornly to defend their opinions; but let the decision rather depend on the Abbot's judgment, and all submit to whatever he shall decide for their welfare.

However, just as it is proper for the disciples to obey their master, so also it is his function to dispose all things with prudence and justice.

In the fall of 1951 the committee solved many detailed problems involving repairs, and it formulated a statement of requirements for the new annex. Gradually, the monastic community as a whole, through an exchange of ideas between the building committee and individual monks, shifted its thinking from the immediate and particular needs to a more visionary focus on the necessity for an over-all conception of the present form and future growth of the monastery.

The gradual growth of Saint John's over a period of one hundred years had been characterized by a more or less random and planless expansion of physical plant. The original priory was founded in 1856 by five monks who came to St. Cloud to serve the thousands of German immigrants who were pouring into the Minnesota Territory and to do missionary work among the Chippewa Indians. The simple wooden buildings of the Priory on the upper Mississippi weathered the threat of the Sioux uprisings in 1862; then, in 1864, the Priory was moved

deeper into the Indian territory called "Indianbush" to its present location beside Lake Sagatagan. At the new site the first stone building was completed in 1865-66 (see illustration 6), and in 1866 the Priory achieved its independent status as an abbey. Through the 1870's and 1880's the Abbey was expanded rapidly into a brick quadrangle: three and one half wings plus a church (see illustrations 6, 62). This expansion resulted in a fixed physical ground plan that afforded little possibility for a real separation of the Abbey's several functions (as parish, as seminary, as college, and as preparatory school). From its completion in the 1880's this relatively inflexible quadrangle has been called upon to house the growth and the changing needs of a community that has evolved into the largest Benedictine community in the world.

In the winter of 1952-53 the building committee became more and more aware of the consequences of this rapid and planless (or rigidly planned) growth; but the committee was not at that point willing to advocate the drastic steps involved in the demolition of existing buildings. Instead, the committee concentrated on a plan that included the construction of a new church and the conversion of the old church into housing and administrative offices. This solution would have been an answer to all the requirements of the monastery except the provision of much-needed space for the expansion of the library.

The final action of the first year and a half of the building committee's work took place on March 3, 1953, when the committee submitted a report to the Senior Council. The report indicated that the committee had not called in an outside expert, and further that, although this program was extremely tentative, it represented the committee's attempt to solve the major needs at Saint John's. The report listed several needs in order of priority: (1) additional monastic quarters for the aged and infirm Fathers and Brothers, (2) additional space for library needs, (3) additional space for the church, (4) additional space for administrative offices and classrooms, and (5) additional facilities for guests. Many other items appeared in the report but were not included among those meriting priority: special quarters for predivinity students; a remodeling of the sister's convent; the fireproofing of stairs; cement tennis courts; an enlargement of the stadium, of the handball courts, of the blacksmith's shop, and of the granery; a new barn and new location for beef cattle; and a sculpture shop.



6. SAINT JOHN'S IN 1883 WITH ABBOT PETER ENGEL IN THE "LONESTAR"

7. SAINT JOHN'S IN 1956 WITH NEW MONASTIC WING



The Senior Council then presented this report to the entire monastic community. Over and above the priority list of needs, the report specifically proposed the construction of a new church in front of the main buildings on the east side of the quadrangle. The monastic community's desire for a new church (as revealed in the building committee's report) arose from the conviction that the church should reflect in its architectural forms the major changes in liturgy that have resulted from the liturgical revival of the 1920's. In the United States this revival was led by Saint John's Abbey through its liturgical apostolate. The revival called for a more direct and realistic interpretation of Christian worship; it also envisioned the laity's understanding of and participation in the corporate worship of the Church. But the old church at Saint John's with its divided choir and transepts made it difficult for the congregation to participate actively in the liturgy.

At the end of the open meeting, the planning had reached such extensive proportions that the decision was taken to employ the talents of a professional architect to prepare a comprehensive plan. The next question was how to go about the selection of an imaginative and outstanding artist. The monks felt that a competition, a common and valid procedure for public buildings, would have a double disadvantage: it would be expensive, and it would deny the community the opportunities and values inherent in a personal and working contact with the architect. The monks therefore voted to select and to write to twelve architects, to ask them whether they would be interested in designing a new Saint John's Abbey.

The major task of selecting the twelve architects rested with Father Cloud who had been studying modern architecture in Europe and in the Americas. He based his judgment on the architect's ability to deal with comprehensive plans and with the design of churches. The following architects were selected: Richard J. Neutra of Los Angeles, Walter A. Gropius, formerly dean of the School of Architecture at Harvard and presently head of the Architects Collaborative of Cambridge, Eero Saarinen of Bloomfield Hills, Michigan, W. Sharpe of Oxford, England, Marcel Breuer of New York City, Barry Byrne of Evanston, Illinois, Pietro Belluschi, dean of Architecture and Planning at M.I.T., Professor Rudolph Schwarz of Cologne, Germany, Hermann Baur of Basel, Switzerland, Robert

Kramreiter of Vienna, A. Boslet of Wuerzburg, Germany, and Joseph Murphy of St. Louis.

Since the Abbot's letter to the architects embodies the convictions of the majority of the monastic community's members, it is quoted in its entirety:

St. John's Abbey
Collegeville, Minnesota
March 7, 1953

Dear Sir:

I am writing to ask whether you would be interested in preparing a comprehensive building plan and report for St. John's Abbey. We must build in the near future and we believe that we should not begin any construction until a plan has been prepared that will provide for our long range needs so that all of our buildings will form a complete and unified whole. If we were a new institution, the preparation of such a plan would not be so difficult. But in three years we will commemorate the centenary of our founding, and it will be necessary for any future plan to take into account our present complexus of buildings. For that reason we believe that an architect of exceptional status is required, and your name has been suggested to me for this purpose.

Although we are writing to several outstanding men to ask whether they are interested in preparing a comprehensive plan for us, we have no competition in mind. The job will be an outright and direct contract.

Perhaps it will be helpful to you if I give you a brief sketch of our institution. St. John's Abbey is a community of religious of the Order of St. Benedict, with some three hundred monks. Not all of the members of the community are resident at St. John's, for the abbey is in charge of a number of parishes and monastic foundations in the Bahamas, Mexico, Puerto Rico, Kentucky and Japan. About one hundred and twenty-five monks are engaged in parochial or mission work; the remainder reside here at St. John's. The Abbey is one of the largest Benedictine communities in the world at the present time, and it has become rather widely known as the center of the liturgical movement, principally through its publications.

St. John's University, conducted by the members of St. John's Abbey, is the oldest Catholic institution of higher learning in the state of Minnesota and comprises three units: a School of Theology, a College of Arts and Sciences, and a College Preparatory School. The total enrollment is about twelve hundred students.

We have been working on a master list of our needs and find that among the principal requirements are: a much larger church, additional

monastic quarters, a library, a guest house, and an administration building. Once a successful master plan has been achieved we will go ahead with a considerable part of it. The church, we feel, would probably be given priority.

Although this present proposal concerns the comprehensive plan only, we are most interested in building a church which will be truly an architectural monument in the service of God. Sheer overcrowding forces us to expand our present facilities, and we do not want the mere material exigencies of the situation to determine our architecture. The Benedictine tradition at its best challenges us to think boldly and to cast our ideals in forms which will be valid for centuries to come, shaping them with all the genius of present-day materials and techniques. We feel that the modern architect with his orientation toward functionalism and honest use of materials is uniquely qualified to produce a Catholic work. In our position it would, we think, be deplorable to build anything less, particularly since our age and our country have thus far produced so little truly significant religious architecture.

Yours sincerely,
Baldwin Dworschak, O.S.B.
Abbot

This impressive letter articulated the monastery's attitude toward building and demonstrated how that attitude had been transformed from a short-range expediency of repairs and minor alterations to a preoccupation with a long-range and comprehensive plan. In the past, some individuals had envisioned this goal. One of these was Father Virgil Michel who wrote to Abbot Alcuin Deutsch from Munich on September 22, 1924:

> How nice it will be to see the square at home beautified! How often I thought of that this summer and of the beautiful cloister we could have there. We surely ought to get a unified plan of building and get it at once, even if we do not build now, and cannot complete it for a hundred years. And the corridors ought to be more ample and smiling, enough real cloisters and a slight architectural "kick" . . . visible everywhere. Why are we afraid to let a building stand incomplete for a few years?

The spirit of Father Virgil's letter had become, by 1953, a vital part of the thinking of the monks who, through the traditionally democratic process of the exchange of ideas, had created a vision of the new Saint John's, of the Saint John's of the future.

25

All twelve architects responded enthusiastically to Father Abbot's letter, and each was impressed by the modernity of its views. All but two applied for the assignment. Eero Saarinen was too busy with current commitments; and Pietro Belluschi, who had transferred the active management of his Oregon offices to other persons, could have served only as a consultant. The community's next problem was to select those architects who were to be invited to Collegeville for interviews. Five were finally asked to come: Walter Gropius, Richard Neutra, Joseph Murphy, Barry Byrne, and Marcel Breuer. Each of the architects spent several days viewing the buildings, studying the needs and requirements of the community, and interviewing the monks. Each of the architects agreed that the requirements of the monastic community could not be met by a plan to enlarge or convert the present church, that the community's requirements could be satisfied only by a detailed study that would culminate in the design of an over-all building program.

While the architects were studying and interviewing, they were being studied and interviewed in turn. The monks were preoccupied with the problem of the final selection of an architect. They wanted an architect who could preserve and safeguard the best traditions of the Benedictine Order; and at the same time they wanted an architect who would create buildings which in their materials and technology would reflect the ideals and purposes of contemporary monastic life. Further, they wanted an architect who could give them, in the course of the planning and designing sessions, a deeper insight into architecture as an art. The community wanted not only an architect and a design, but also a perception and understanding of that design. The community's response is summed up in a press release, entitled "Architects' Visit":

> All the architects seem to be interested in the plan because its complexity presented a challenge to their ingenuity and because it presents an opportunity to be associated with a project which will have lasting spiritual significance. (*The Record*, Collegeville, Minnesota)

On April 20, 1953, the Abbot (see illustration 3) prodded his community: should more architects be invited to Saint John's? If not, which of the five visitors should be selected to submit a comprehensive plan? In open meeting the monks

unanimously agreed that no more architects should be invited to Collegeville. Father Cloud, who had prepared the original list of twelve and who had spent more time with the visitors than any other monk, was asked to summarize the architects' individual qualifications. The bell for Matins sounded before he had finished. The following afternoon the Senior Council and the building committee held informal discussions, and that evening the chapter meeting discussed in detail the relative merits of the five architects. Each member of the building committee expressed his views. Finally, Father John, the chairman, asked each Father present to notify the Abbot of his preference by putting a ballot in the Abbot's mailbox. A large majority selected Marcel Breuer (see illustration 4). Some indication of the community's response to Breuer is contained in the minutes of that April 21, 1953, meeting:

> Breuer is a man of recognized ability, unassuming, direct, easy to work with and yet not afraid to tell you if he thinks you are wrong. His quiet and humble manner, and his willingness to tell exactly what he thinks are the characteristics most in his favor.

On April 23, Abbot Baldwin officially announced the choice of Marcel Breuer as the architect:

> Because I feel that he is the choice of the majority of the community, I do not hesitate to ask all of you to accept him and to cooperate with him in whatever manner you are asked to do. Since such a plan is certain to have a vital effect on our community spirit, I beg of you to continue praying that in all this God may be glorified.

In the course of twenty months of intensive study, the monks of Saint John's Abbey had formulated a full-scale building program as an answer to the monastery's present and future needs; and they had selected an outstanding architect to help them define and implement their plan. The pioneering spirit that had brought five monks to Minnesota in 1856 once more manifested itself in the vision of the entire monastic community as it embarked on an integrated program of planning and building for a second century of worship and work.

II

Architect and Patron: Evolution of a Plan

FUNCTIONAL AND ARTISTIC SUCCESS IN A LARGE-SCALE BUILDING PROGRAM DOES not spring solely from the architect's brilliance and creativity, nor does it arise from the character and taste of the patron alone. Success depends on the sensitivity of both architect and patron and on the cooperative spirit engendered between them. For the implementation of a successful plan, Breuer, in his role as architect, thus needed to understand the forms of modern life and modern architecture, and, in his specific relation to Saint John's, he needed to understand the peculiar nature and requirements of monastic life in this century. The monastic community, in its turn, had to understand the nature of its own architectural needs and their relation to the peculiar talents of the architect it had hired.

Saint John's Abbey, in selecting Marcel Breuer as its architect, had chosen one of the pioneers of the modern movement in architecture. The community in its attempt to understand its architect had to look not only at his personality and at his career but also at the architectural world in which that personality had come of age. The modern movement in architecture found its initial impetus in the work of two Americans: Frank Lloyd Wright and Louis Sullivan. Both Sullivan and Wright, as early as the 1890's, were in positive revolt against the abysmal taste of post Civil War architecture. In Europe the new shapes of the modern point of view emerged in the second decade of this century through the work of Walter Gropius, Mies Van der Rohe, and Le Corbusier. Breuer, who was born in Pecs, Hungary, in 1902, is somewhat younger than these other European "moderns"; nevertheless, he came of age as an architect and a designer in the 1920's.

Breuer began his career in the arts with a desire to be a painter and sculptor. He started his professional studies at the Vienna Art Academy, but he found the artistic atmosphere of the academy sterile; he left Vienna for Weimar, Germany, where he entered the far from sterile atmosphere of the Bauhaus. In forming the Bauhaus, its director, Walter Gropius, had unified the Art Academy and the Arts and Crafts School. This unification cut across the rigid lines of distinction between the fine arts and the crafts and resulted in the synthesis of art forms and modern technology—a synthesis that has made the new shapes of modern design, and has had its influence on every facet of design from typography to architecture. When the Bauhaus moved to Dessau in 1925, the twenty-three-year-old Breuer became head of the furniture workshop. His revolutionary designs in metal, as well as his research in prefabrication, are the product of this period, when his creative and inventive insight burst forth in the dynamic atmosphere of the Bauhaus.

In 1928 Breuer left Dessau for Berlin where he entered upon his independent career as an architect. This career, from 1928 until his departure for the United States in 1937, was a varied one. Breuer traveled extensively in Europe and in the Mediterranean area. These travels gave him, among other things, a deeper insight into the qualities inherent in little-known provincial architecture. He was for several years involved in a very fruitful partnership with F. R. S. Yorke in England.

This period in his life was marked by the design of several distinguished houses and by a continuing study of the nature of materials, of building techniques, and of furniture design. In 1937 Breuer followed Walter Gropius to the United States, as did many other architects, artists, and educators who could no longer function in Hitler's Germany.

Since his arrival in this country, Breuer has not only proven himself a great teacher, he has become one of the most outstanding architects in America. At the beginning of his life in this country, when he was teaching at Harvard, he was also in partnership with Walter Gropius and this partnership produced the designs for many fine houses and housing projects. In the early '40's Breuer left Harvard to establish an office in New York City; since that time his practice has shifted from one almost exclusively concentrated in the domestic field to one that includes architectural design for practically every form of human activity: schools, dormitories, art centers, and office buildings. Currently, his office is completing the UNESCO Building in Paris, starting work on the American Embassy at the Hague, following the completion of a large department store in Rotterdam. In this country Breuer has contracted to build a large housing unit at the Institute for Advanced Research in Princeton, a library and administration building for Hunter College in New York City, a Benedictine Sisters' convent in North Dakota, several schools in Connecticut, and a railroad station in Rye, New York. Breuer has gathered together a group of young, sensitive designers, yet he has kept his office small so that he can supervise personally every detail of the many projects in the various stages of their completion. Illustrations of most of his buildings, both completed and projected, are contained in an excellent monograph, "Marcel Breuer: Sun and Shadow." The text of this volume comprises the architect's own philosophy as recorded and edited by Peter Blake.

This, in thumbnail sketch, is the man and the architect whom the monastic community had chosen and to whom the community had to relate its needs. Conversely, Breuer as architect, was faced with the necessity of studying and appreciating monastic life in its modern embodiment at Saint John's, a community dedicated to the Rule of Saint Benedict. In this sense today's monastery is an outgrowth of fourteen centuries of balance between constancy to the Rule on the one hand and adjustment to the changing social world on the other. At its incep-

tion organized monasticism placed its emphasis on group worship and manual labor; in the course of its evolution the original Benedictine emphases have been expanded to include special dedications to missionary work, scholarship, and education.

The history of Saint John's Abbey itself is typical of this dedication. The five monks who traveled west from Saint Vincent's Abbey in Pennsylvania in 1856 immediately established a school upon their arrival in St. Cloud, Minnesota. As the Priory at St. Cloud grew into an abbey with its own dependent priories so the simple wooden school grew into a university with a liberal arts college, a preparatory school, and a school of theology. These several schools within the University combine yearly to educate fourteen hundred people: clerics of the Order of Saint Benedict, diocesan seminarians, and lay students.

The modern community of Saint John's Abbey is composed of the Fathers and Brothers in Collegeville, together with those in the dependent priories, parishes, and Indian missions. There is, for example, the priory at Nassau in the Bahamas which has, in addition to its monastic buildings, a preparatory school for colored boys. In Mexico City, Benedictines of Saint John's are teaching over two thousand young men in the former American School, now called Colegio del Tepeyac. In Puerto Rico, a priory is dedicated to craft and agricultural training. Saint John's has recently established an interracial priory in Kentucky, which is housed in a once-flourishing Shaker settlement. In 1947 Saint John's purchased land in the heart of Tokyo and has constructed on that site Saint Anselm's, a strikingly modern church designed by Antonin Raymond. The Tokyo church serves a parish of twelve hundred and fifty persons and aids its parishioners by running a kindergarten.

The Abbot himself reflects the many-sided activities and responsibilities of the Saint John's community. Abbot Baldwin Dworschak is responsible for the religious and educational life of all these dependencies and of Saint John's itself, since he is both Abbot of the monastery and president of the University. Elected for life by the whole community, the Abbot's responsibilities are so great that he has delegated some of the administrative work to other monks. Father Arno Gustin is the dean of the University, but the Abbot keeps in touch with the educational developments through reports and through his attendance at the meetings

of the University's administrative council. Abbot Baldwin runs the Abbey and its dependencies with the advice and help of his Senior Council, which consists of six members, the Abbot, the prior, the subprior (who is also the Abbot's secretary), the procurator (treasurer), and two Fathers elected each year. Any important decisions, however, involving expenditures of money or major policy changes, must be voted in democratic fashion by a chapter meeting which the Abbot alone can convene.

Each of the Fathers is an ordained priest who has followed the prescribed educational pattern, which begins with one year of the novitiate after at least two years of college. Upon completion of the year in the novitiate, the cleric takes the simple vows of poverty, chastity, obedience, stability, and conversion (perfection) of life, vows that bind him to the community for three years. In three years, two of them devoted to the study of philosophy and one to the study of theology, the cleric completes his college work and pronounces his solemn perpetual vows, which bind him for life. At this point he becomes a voting member of the monastic chapter. Upon completion of three more years of theology the cleric is ordained a priest.

Ordination does not necessarily mean the completion of a monk's education. The Abbot, with guidance from the Master of the Clerics, with the counsel of other monks together with the consent and opinion of the individual, decides what role the individual can best fulfill in the multiform activities of the Abbey and its dependencies. If the young priest is a successful teacher and wishes to specialize in philosophy, theology, history, economics, art, or some other field, the Abbot sends him to graduate school here or abroad. As a result, many of the Fathers possess advanced degrees. The extensive educational background of the monks and the dedicated spirit of their chosen way of life renders the monastery a highly intellectual and perceptive community.

This is the community that Breuer, as architect, had to study, to understand, and to appreciate in terms of its modern form, its heritage, and its dedication to the Rule of Saint Benedict. Breuer had to study the men who are the monks and the training that had made them Fathers or Brothers. He had to understand their concept of and commitment to education; he had to appreciate the complexity of their responsibilities and activities at Saint John's and also abroad, since a

comprehensive architectural design for an abbey with priories and parishes as distant as the Bahamas and Tokyo would have to reflect not only the forms and spirit of the Abbey's life but also the interplay of the Abbey and its distant dependencies.

An exciting interchange of ideas between Marcel Breuer and the monastic community marked the period between April, 1953, when Breuer was selected and January, 1954, when the comprehensive one-hundred-year plan and the more immediate designs for monastic wing and church were presented. Breuer needed not only a general concept of monasticism and of the nature of the church; he also needed specific information on the topography of the site, surveys of existing buildings with their uses and dimensions, estimates of the numbers of persons, present and future, who would use and occupy these buildings. Breuer wanted every kind of information. He asked individual monks for comments in the form of random notes. He specifically requested a copy of Father Cloud's article on churches for the Order of Saint Benedict, because that article would help him understand the nature of the church. He asked for the schedule of a typical day at Saint John's, a schedule which involves briefly:

CHAPTER 42: *That No One Speak after Compline*

When all, therefore, are gathered together, let them say Compline; and when they come out from Compline, no one shall be allowed to say anything from that time on. And if anyone should be found evading this rule of silence, let him undergo severe punishment. An exception shall be made if the need of speaking to guests should arise or if the Abbot should give someone an order. But even this should be done with the utmost gravity and the most becoming restraint.

4:25 A.M.	Rising
4:45	Divine Office: Prime, Tierce, Conventional Mass, Sext, None.
5:45	Private Masses and Cleric's Communion Mass
6:15	Breakfast
8:10-11:50	Classes
11:50	Particular examen in lower chapel (private examination of conscience)

12:00	Dinner
12:30	Recreation in the recreation rooms
1:00-2:30	Classes
2:45	Outdoor relaxation for clerics and Fathers who do not have late classes
4:30	Study or other assigned work
5:20	Vespers sung followed by Compline
6:00	Supper
6:30	Common recreation
7:30	Divine Office: Matins and Lauds
8:30	Nocturnal (or great) silence.

With four hours scheduled for chanting the divine offices plus a full teaching or administrative job, the monks lead a busy life. From this schedule Breuer could better visualize the problems of circulation and could add this visualization to his understanding of the varied functions of a monastic community.

The Abbot, in order to facilitate the flow of information to the architect, sent a memorandum to the entire chapter, urging the monks to list any ideas concerning the community's building needs. Further, he asked a group of Fathers to suggest articles and books that might help the architect, particularly with the design of the church. At the same time, Abbot Baldwin prepared a list of personnel and activities and invited the entire community to comment and expand on each item. He appointed three commissions to assist the building committee: the Monastic Commission: Fathers Prior Clarus, Cosmas, Godfrey, Paschal, Vitus, and Philibert; the Educational Commission: Fathers Arno, Gregory, Martin, Walbert, Gunther, and Stanley; the Farms and Shops Commission: Fathers Walter, Christopher, Joachim, Ignatius, Bertram, and Gervase. Many of these monks knew little about the areas of study to which they were assigned. For example, many of those on the Farms and Shops Commission had no previous experience with this facet of the community's life. By a process of osmosis and study all the monks gained a deeper insight into the workings and problems in their own backyard. In the effort to increase the architect's understanding of their community, the monks were achieving a new understanding in their own right; thus, the creative process was not simply the architect's but jointly that of architect and patron.

Marcel Breuer and Hamilton Smith of Breuer's office made many flying trips to Collegeville after May of 1953. They met with the various commissions and

with the Library and Athletic committees. They studied the site, the existing buildings, and the patterns of the monastery's life. At the outset it was decided to proceed with a general comprehensive plan for the whole community and with specific preliminary drawings for a new monastic building and a new church. On a two-day visit in August, Breuer received permission to consult a structural engineer, an acoustical expert, a heating and ventilating engineer, and also to have Pier Luigi Nervi, the imaginative Italian concrete engineer, check the structural drawings of the church. (Nervi had collaborated with Breuer on the designs for the UNESCO Building in Paris.)

Breuer's visits to Saint John's and the resulting flow of correspondence concentrated on a variety of questions: possible sites for new construction, the nature of the church, the nature and location of the chapter house, a design for the new monastic wing, and, inclusive of all of these, the over-all plan. Possible sites were limited by the existing plant (see illustrations 2, 6). The projected buildings would have to be adjacent to and attached to the old quadrangle so that the pattern of teaching, work, and worship could continue uninterrupted. The only site available seemed to be that to the east of the old buildings. This land has a spectacular southern view of Lake Sagatagan, but buildings located on the spot would cut across a road and two sidewalks (which led down to a grotto and then to the shore of the lake). This area has been for generations the principal and favorite recreational area for the monks as well as for the relatives and sightseers who visit the Abbey. It was apparent, however, that in spite of the community's sentimental attachment to this ground the road and sidewalks would have to give way to the ordered expansion of Saint John's.

In the course of that summer of 1953, as the whole plan evolved, the designs for the new church underwent particularly dramatic changes. The physical requirements for the church were established in June. The Upper church was to contain 1250 seats for the congregation and 180 seats in the choir stalls for priests, clerics, and novices. The Lower church or crypt was to include a parish chapel for 400 persons, a Brothers' choir for 100, and 30 altars for private Masses. These physical needs Breuer and his associates had to arrange in a design that reflected the ideals of the liturgical reform, ideals which had been expressed in part by Father Cloud in his article, "The Monastic Church":

> The liturgy, in fact the Christian life, hinges around two sacraments, Baptism, by which one enters the living Church, and the Eucharist, by which life is nourished and brought to perfection. The baptistry and the altar must form the axis of the church building as Baptism and the Eucharist form the axis of the Mystical Body. Around them will cluster the other sacraments, the sacramentals, and the prayers of the children of God.

The central problem in the design of the church was to create a space that would reflect the monastery's liturgical ideals, a space that would be intimate enough for the monastery's everyday use and yet commodious enough for a congregation of about 1250 students and parishioners to join in the worship on Sundays and holy days. Priests and clerics assemble in the choir of an abbey church four times a day, seven days a week. The traditional solution to this paradoxical space problem in abbey churches has been a separation of choir and congregation: the choir housed near the altar in an intimate space cut off by some form of screen from the larger area reserved for the congregation. This solution has the advantage of providing an intimate setting for the daily offices, but it has the serious disadvantages of blocking the view from the nave to the altar and thus lessening the congregation's participation in the worship of the Mass. In effect, the traditional architectural solution for an abbey church was a spatial denial of the liturgical ideals to which Saint John's Abbey is dedicated.

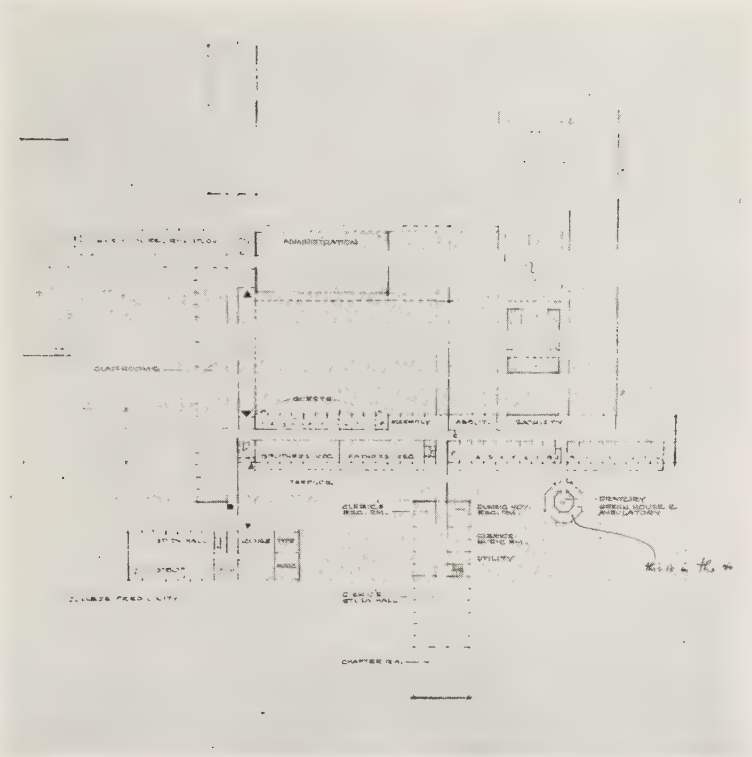
Breuer and his associates understood this problem; they understood the necessity of achieving a unified plan that would satisfy the monastery's need for physical space at the same time that it fulfilled the liturgical requirements. Early in July of 1953 Breuer's office produced a plan that included the evolving designs of the main buildings and showed a long thin church with a baptistry in the middle of the entrance (see illustration 8). In this plan, the monks would have faced each other in the square-ended choir. On the basis of this general plan Hamilton Smith and Bob Gatje in Breuer's New York office prepared a fascinating set of diagrams outlining the problems of the church design. These diagrams were sent to Saint John's and to Breuer, who was in Paris. Breuer questioned the longitudinal plan (see illustration 8) in a series of marginal notes and small sketches. His notes and sketches suggest that in addition to facing each other (as in the square choir) the priests also must face the altar and the congregation.

Breuer's final suggestion at this point was that the altar might be located within a triangular floor plan with the choir occupying one acute angle and the congregation a broad space between the other two angles.

All the subsequent plans for the church are refinements of this triangular plan with its central placement of the high altar. The plan of July 31, 1953 (see illustration 9) suggested a modification of the triangle into a trapezoidal form. The entrance would be through a projecting baptistry, and the high altar would be located in the middle of the choir. In this plan the exact locations of priests, clerics, Brothers, and the Abbot's throne had not been clarified. In August, Marcel Breuer and Hamilton Smith discussed the ideas contained in the July 31 plan with a group of Fathers, all theologians. This group, which was formalized into a church committee in September, consisted of Subprior John, Fathers Christopher, Conrad, Godfrey, Paschal, Gregory, Joachim, Michael, Cloud, and Virgil. This informal session in August lasted until two o'clock in the morning. In the smoke-filled library of the Art Department, many facets of the church and its liturgy were analyzed. How could Fathers and clerics face each other and at the same time see the altar and be seen by the congregation? Where would the Brothers sit? By two o'clock the give and take between architects and monks resulted in a floor plan satisfactory to both artist and patron. Breuer's office now had the task of arching a shell over this plan which would in its definition of space preserve and enhance the church's liturgical significance. (See Chapter V. Proposed Church.)

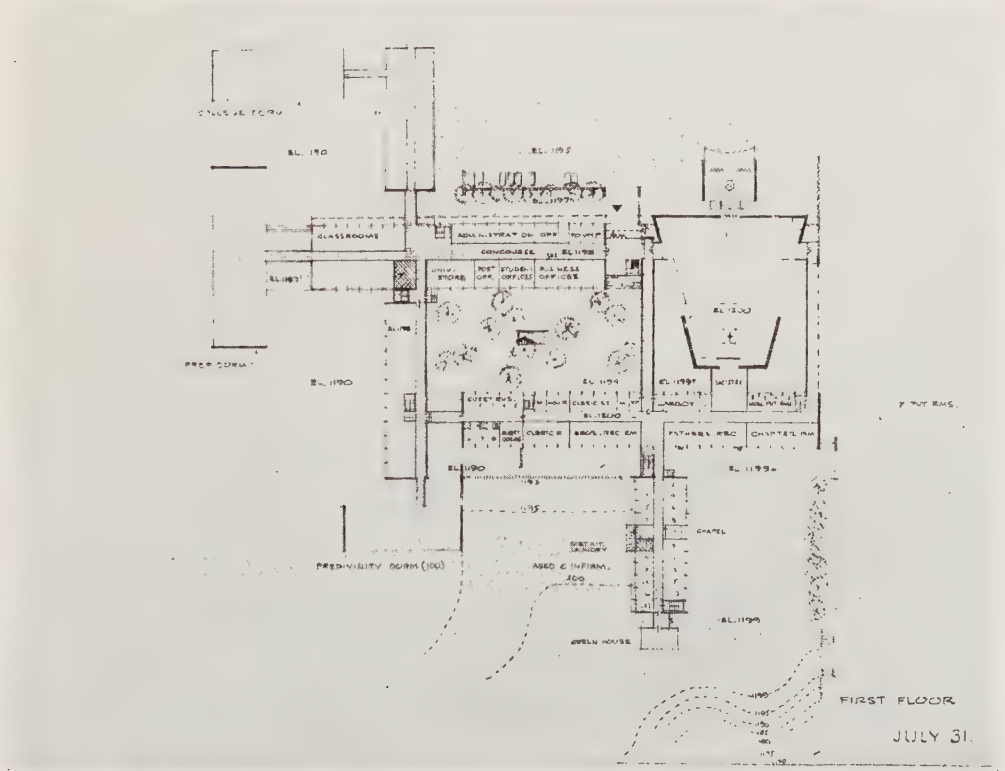
While Breuer and his office concentrated on designing the interior space of the church and on determining the structural system for its enclosure, they received a letter and plan from Father Joachim Watrin who had observed certain connections between the design of the church and the classical proportions known as the golden section. He wrote:

> If the side walls of the church were altered by about two degrees, the shape could be divided into two similar trapezoids and into two pairs of similar isosceles triangles, resulting in only three lengths of lines and three sizes of angles. The sum of the two smaller dimensions equals the large one, and the product of the small and the large equal the square of the intermediate dimension.



8. EXPERIMENTAL PLAN (JULY 2, 1953)

9. MORE DEVELOPED PLAN (JULY 31, 1953)



Did you, perhaps, base your design on this geometric skeleton and then make some necessary adjustments?

Wait your answer until your next visit; I am not suggesting that you change the design, but I thought you might be interested.

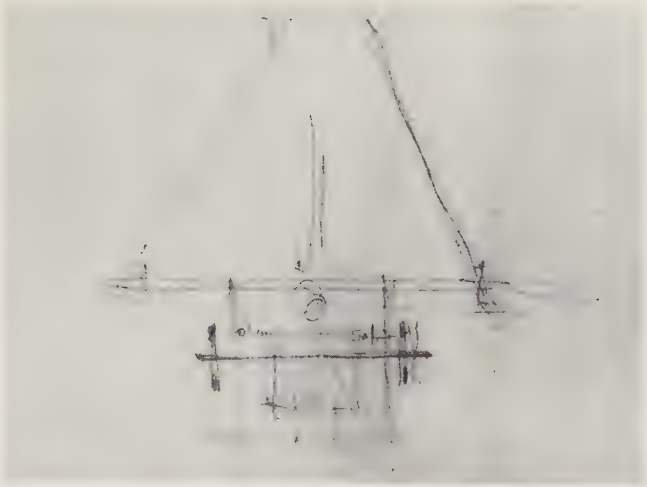
Sincerely yours,

Joachim Watrin, OSB.

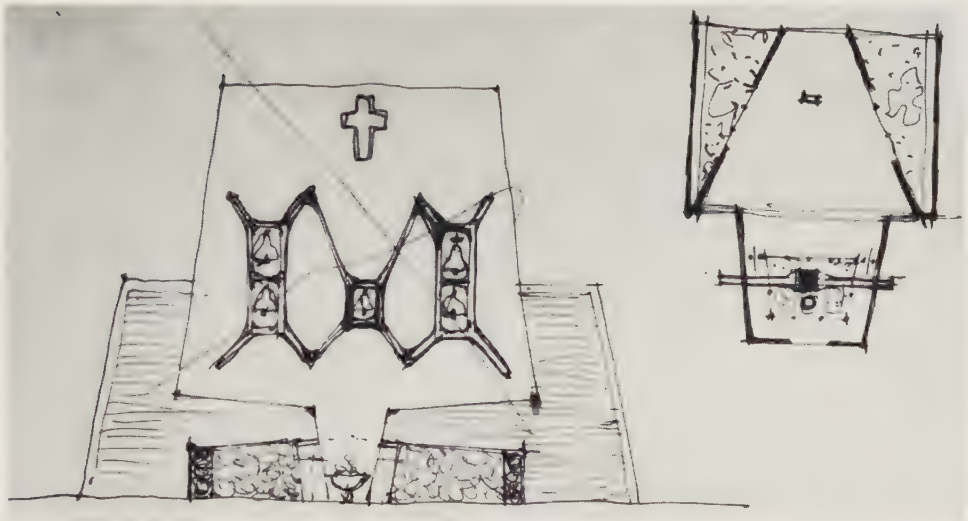
Breuer's plan had not proceeded from any mathematical conception. The plan had evolved out of an immediate concern with the monastic community's definition of its needs and desires. Breuer and his office were preoccupied with the achievement of a plan with its enclosing shell that would provide the best conceivable acoustical arrangement for the choir in combination with the best possible view of the altar for the congregation. Breuer's plan had developed gradually as a result of his increasing knowledge of the liturgy and of the coalescence of this knowledge with his comprehension of architectural design. Father Joachim's diagram, on the other hand, was a mathematical formula, which almost coincided with Breuer's plan. The outcome was happy since Breuer's office immediately made the few necessary adjustments to bring the plan into conformity with the golden section.

At this stage of the planning, an acoustical expert, Walter Holtkamp, was called in to analyze the sound properties of the church. Holtkamp was considering a trip to Europe, and Abbot Baldwin, in the interest of enlarging the expert's sense of the acoustical problems involved, gave Holtkamp a letter of introduction to the Abbot of Maria Laach in Germany. A study of the German abbey and its acoustical problems might, the Abbot felt, help Holtkamp understand the role of the organ in monastic worship. Here again the problem involved the conflict between everyday intimacy and the inclusion of the occasional congregation. One traditional solution to this problem was the use of two organs as at Maria Laach—one large organ for the public services and a small organ in the choir for the daily offices.

The Abbot also recommended that Holtkamp visit the Benedictine monastery of Solesmes in France where the monks' singing of Gregorian chants has earned them international acclaim. Holtkamp's trip helped establish the type and place-



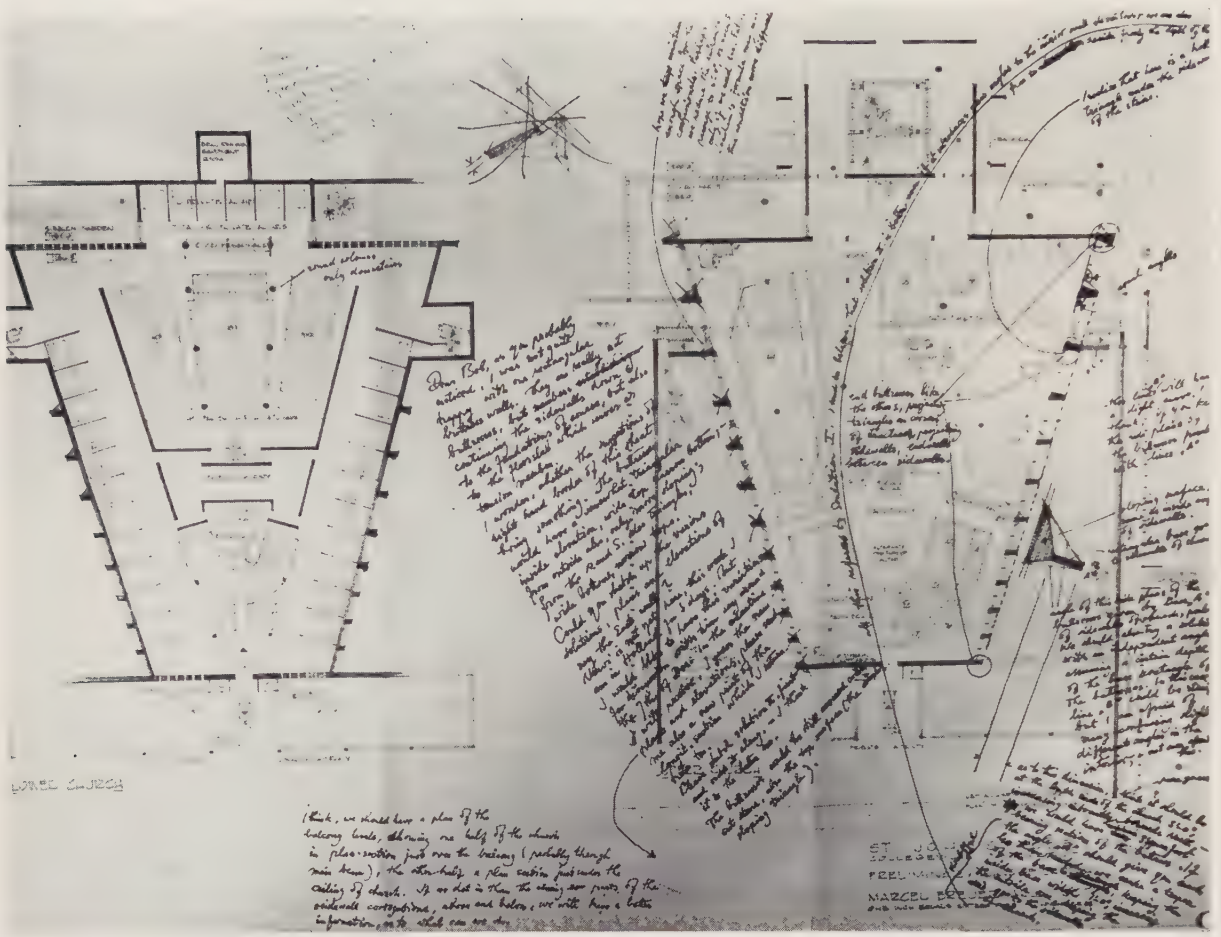
10. BREUER SKETCH: PLAN OF CHURCH, BAPTISTRY, AND BELL BANNER (1953)



11. BREUER SKETCHES (1953): ELEVATION OF CHURCH AND BELL BANNER; PLAN OF CHURCH AND CLOISTERS



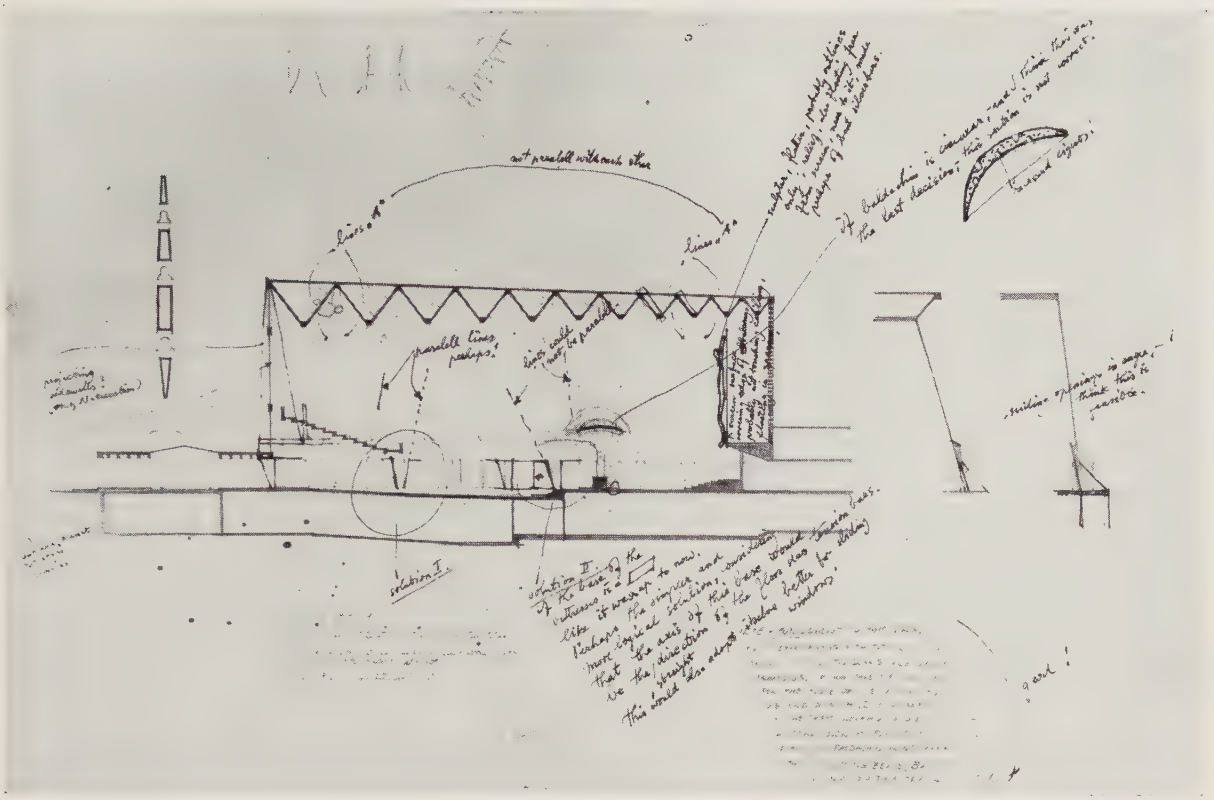
12. BREUER DRAWING: CHURCH, CHAPTER HOUSE, BELL BANNER (1953)



13. PLANS OF LOWER AND MAIN CHURCH WITH NOTATIONS BY BREUER (NOVEMBER, 1953)

ment of the organ, and gave both expert and architect further information on the acoustical potential of the Abbey church.

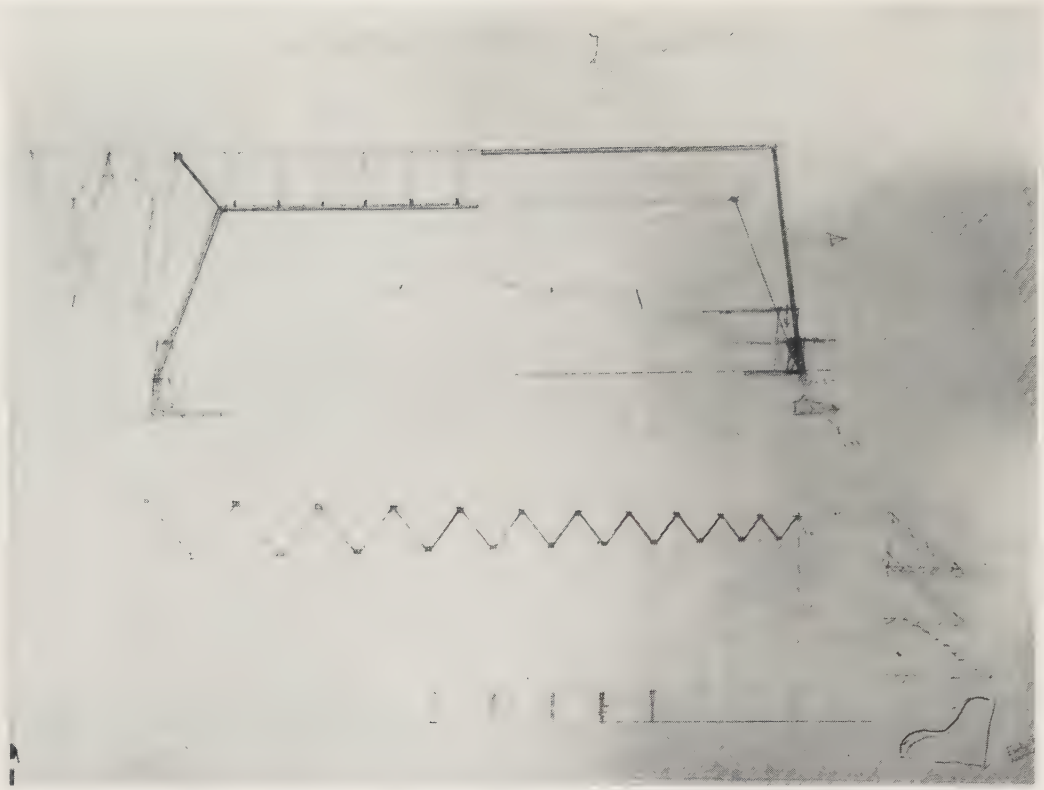
By late November, 1953, the plans and sections of the church were developing rapidly. Marcel Breuer was in Europe concentrating on the UNESCO building in Paris and on architectural commissions in Holland, but Hamilton Smith and Bob Gatje, following basic designs established before Breuer's departure, sent plans and sections for his reactions (see illustrations 13, 14). These architectural prints reveal considerable change in the plan of the church when contrasted with the experiments of the summer (see illustrations 8, 9). Breuer's marginal notations indicate that at this point the basic problems from his point of view centered in the shapes and axes of the piers on which the concrete church would rest.



14. SECTIONS OF CHURCH WITH NOTATIONS BY BREUER (NOVEMBER, 1953)

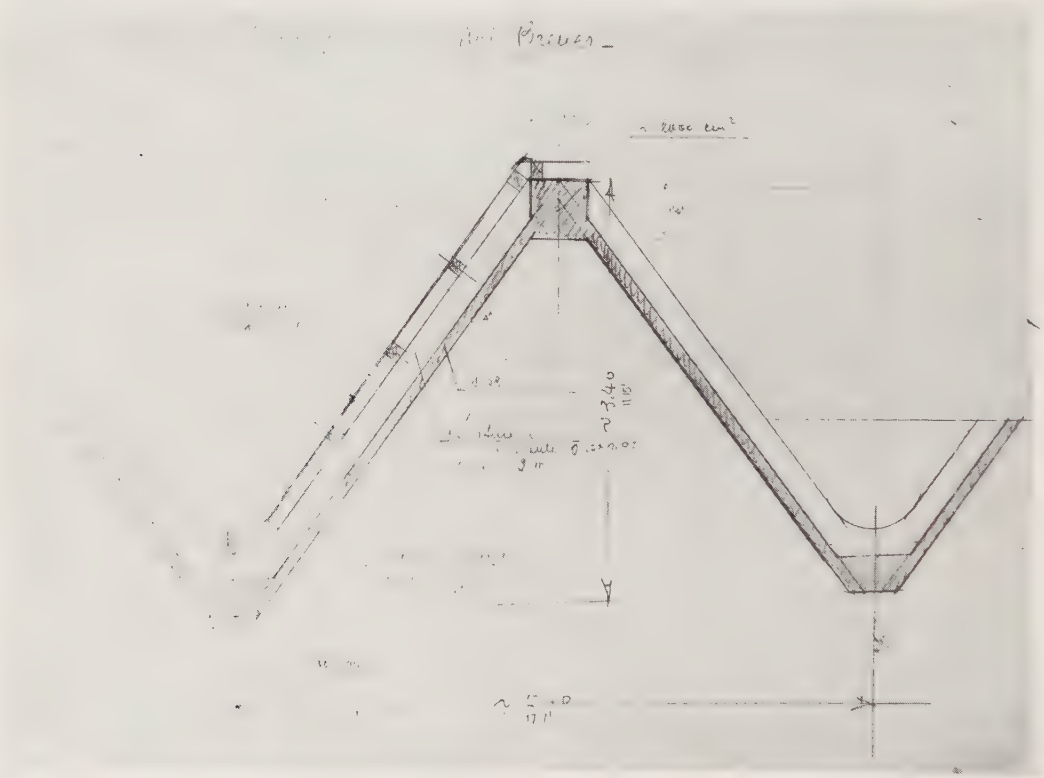
These problems, among others, Breuer discussed with Pier Luigi Nervi, the Italian concrete engineer. Nervi added comments and notations to the two drawings prepared in Breuer's office (see illustrations 15, 16); these notations indicate the engineer's role in the design of the church. Since Nervi was collaborating with Breuer on the UNESCO building in Paris, it was quite natural that he would be called in on the Saint John's project. He made a mathematical check of the stresses in the church structure and approved the structural principles as designed. When the proposed church is constructed, however, Nervi's skills will be utilized to a far greater extent.

The longitudinal section down through the middle of the church (see illustration 14) indicates the slope of the floor, the location of the baptistry with the bell banner rising over it, and includes some notations on the design of the canopy or baldachin over the altar. Father Joachim's ideal angle of 36° has been applied



15. STRUCTURAL SECTIONS WITH NOTATIONS BY PIER LUIGI NERVI (1953)

16. STRUCTURAL STUDY BY PIER LUIGI NERVI



to the slope of the roof. Both the plan and the section grew out of sketches made by Breuer earlier in the fall (see illustrations 10, 11, 12). The earlier pencil and pen drawings reveal the nature of the bell banner as first conceived. The chapter on the proposed church will discuss the final designs of bell banner and church as presented to the monastic community.

During the months preceding the final presentation of models and plans, the location of the chapter house came under scrutiny. The chapter house is the scene of administrative and policy decisions in the Abbey. In contrast to the church, in which prayer and praise of God is predominant, the chapter house is dedicated to prayerful discussion and action. All chapter meetings begin and end with a prayer to God for guidance. The community's wish is that all its undertakings may have as their moving force the greater glory of God. In the old buildings, the chapter house was a long narrow room on the inside of the quadrangle. Breuer's early design (see illustration 9) shows the chapter house as a room on the main floor of the new monastic wing. Breuer suggested the possibility of a separate wing for the chapter house, following the precedent of the English cathedrals at Salisbury and Lincoln, which were monasteries as well as cathedrals. In one of the earlier meetings, Father Cloud had suggested this solution. Breuer, with a letter of introduction from Abbot Baldwin, had also visited the German Benedictine Abbey of Maria Laach. Although the chapter house of Maria Laach extends off the cloister in the typical Benedictine plan, it also projects out beyond the main monastic rooms. One basic reason, however, for establishing a separate wing for the chapter house at Saint John's was the desire to save space in the new monastic wing for retired monks. Another reason centered in the artistic potential of a chapter house that echoed the larger forms of the church on a smaller scale. The community voted for this physical and artistic change. As a consequence, one of Breuer's sketches (see illustration 12) portrays an early stage of the design of the chapter house as an extention eastward from the cloister walk.

While the architects were devoting most of their attention to the specific design of church and attendant buildings, the over-all plan of the entire monastery was not being neglected. Various units, such as library and administration building, laboratories, and many others, were gradually fitted into place in the total plan for the future. The final chapter will discuss this comprehensive plan.



17. BREUER PRESENTING COMPREHENSIVE PLAN TO ABBOT AND MONASTIC COMMUNITY (JANUARY 28, 1954)

The climax of all this planning by both monks and architect took place on the afternoon of January 28, 1954. Father Abbot Baldwin opened the meeting of the chapter by introducing Marcel Breuer to the assembled capitulars. The Abbot proceeded to commend all the committees, which had contributed so much to the definition of the community's needs. Breuer then presented to the whole community a model of the church, of the monastic wing and its adjoining buildings, and a model of the whole comprehensive plan for one hundred years development. Together with the models he presented volumes with photographs and designs illustrative of various phases of the over-all plan (see illustration 17). Using large diagrams, Breuer explained in detail the technique of building without previous demolition, a technique that would involve completing the monastic wing and the church before tearing down the old church. The new administration and library building could then rise on the site formerly occupied by the old church. Further, Breuer described how the Abbey could build a new building in the shadow of an old building (build and demolish), so that at no moment in the future would the functioning of the community be hampered.

The international acclaim accorded the Saint John's building program is unprecedented in the history of modern architecture. All of the architectural periodicals in the United States and several in South America, Portugal, Spain, France, England, Italy, Japan, and the Philippines published views of the models, the plans of the church, and reported the stages of the building program. The editors of these magazines have been unanimously impressed by the unusual procedure which the monastery used in its selection of Breuer as architect. They have been further impressed by the cooperative spirit engendered and sustained between architect and patron and by the scope and creativity of the one-hundred-year plan in all its phases.

III

New Monastic Wing

CHAPTER MEETINGS IN THE SPRING OF 1954 RESULTED IN THE DECISION TO PROCEED first with the construction of the monastic wing. Such was the extent of the monks' enthusiasm that within four months (May 19, 1954) the site was blessed in an impressive religious ceremony (see illustration 18); and the following day excavations were begun, although the completed plans had not yet arrived from New York.

Before the actual construction started, the plans had gone through an evolutionary process of change and refinement. The creative cooperation between Breuer, as architect, and the monks, as patron, marked each stage of planning and construction. The model of the new wing as presented to the chapter meeting in



18. ABBOT BALDWIN BLESSING SITE FOR NEW MONASTIC WING (MAY 19, 1954)

January, 1954, showed enclosed balconies on both the north and south sides of the building. The monks felt that these private balconies opening off each room were an obvious luxury and thus inconsistent with the Benedictine vow of poverty. As a result, the balconies were removed entirely from the north side and retained on the south side only for the ground floor rooms of the retired monks and for the two recreation rooms.

Later plans presented another problem from the monks' point of view. The architect recommended radiant heating installed in the floors. The monks visited many buildings and observed different heating systems, and came to the conclusion that the extremes and sudden shifts in temperature characteristic of the Minnesota climate demanded a different solution to the heating problem. Breuer's office and the monks finally agreed on a system that provides hot air heating for basement and first floor, hot water for the second and third floors. The main lobby

of the new wing was to be an exception. It was to have radiant heat as a test case since the architects were interested in the possibilities of radiant heating for some of the proposed buildings, particularly the new church.

Chapter meetings in the spring of 1954 focused on problems of construction as well as on problems of design. Benedictine tradition clearly indicates that wherever possible the monks should do the physical work required by the monastic community. On this basis the chapter decided in favor of a cost-plus contract with the Wahl Construction Company of St. Cloud. Under this form of contract the monastery could supply not only labor but also materials; and in addition to fulfilling the monastery's spiritual commitments to manual work, the contract would provide financial savings and training in skills, which could be utilized in subsequent phases of the building program.

CHAPTER 48: *On the Daily Manual Labor*

And if the circumstances of the place or their poverty should require that they themselves do the work of gathering the harvest, let them not be discontented; for then are they truly monks when they live by the labor of their hands, as did our Fathers and the Apostles. Let all things be done with moderation, however, for the sake of the fainthearted.

The architectural firm of Traynor and Hermanson of St. Cloud were retained to serve as liaison between Breuer's office and the monastic community. Ray Hermanson, an alumnus of Saint John's, inspected the building frequently and made reports to the architect and the monks.

The monks supplied about 20 per cent of the labor involved in the construction of the new monastic wing. They began immediately after the mechanical excavations were completed. A crew of twelve clerics working four-hour shifts dug the footings. The lumber for the concrete forms had to be dipped in paraffin oil; the crews of clerics undertook this dirty task. Perhaps the largest single project the clerics undertook involved the preparation of over 30,000 feet of oak and maple flooring. The wood was cut on monastery land and sawed and kiln-dried in the monastery's carpentry shop. A crew of ten clerics under the guidance of the Master of Clerics, Father Jeremy Murphy, was instructed by professional carpenters in the techniques of laying floors. Working in shifts, this crew laid all the wood floors in the rooms of the new wing.

These jobs, plus others, such as assisting with the concrete work and cleaning up after the carpenters, kept the clerics busy during the summer months. In the course of the second summer of work the building neared completion. Brother John Anderl, the Abbey tailor, was at work on the draw curtains, the clerics were at work on the floors, and all the monks were participating with the time and skills at their disposal. When college opened in the fall of 1955, the building was almost ready for occupancy. The clerics resumed their studies; lay workers affiliated with the Abbey continued with the work. The landscaping (still in progress) was started in the summer of 1956 by crews of clerics under the direction of Father Joachim (see illustrations 19, 54).

CHAPTER 57: *On the Craftsmen of the Monastery*

If there are craftsmen in the monastery, let them practice their crafts with all humility, provided the Abbot has given permission. But if any one of them becomes conceited over his skill in his craft, because he seems to be conferring a benefit on the monastery, let him be taken from his craft and no longer exercise it unless, after he has humbled himself, the Abbot again gives him permission.

During the construction period, two Fathers had been added to the building committee: Father Joachim Watrin, professor of mathematics, who was interested in design and in the graphic arts, and Father Ignatius Candrian, procurator (treasurer) of the Abbey. Throughout the periods of design and construction, the monastery's participation in the building process was characterized by a democratic approach. Every individual was invited not only to work but also to express his views and opinions in each detail.

The monastic wing was completed in fifteen months and occupied in the fall of 1955. The monks received their new quarters enthusiastically. A minority had been skeptical during the planning and construction, but the final test—the patterns of life for those living in the new wing—has resulted in general acceptance and approval. The new building stands as a tribute both to the thoughtful and creative patron and to the sensitive and imaginative architect. The retired monks could at last be housed in adequate and pleasant quarters; this aspect of the original desires that initiated the plan for the future of Saint John's has been satisfied.

The new building faces the south and commands a fine view of Lake Sagatagan

and of the monastic grounds that flank the northern shore (see illustration 19). This orientation provides a southern exposure for all the retired Fathers' rooms and for the recreation rooms used by Fathers, Brothers, and clerics. The new wing has the obvious advantage of the sunshine, which penetrates the living quarters during the winter months. The design of the building affords not only this southern exposure; it also gives direct access to the new church, which will extend to the north (see illustration 24). This direct access is of basic importance to a community whose life revolves around participation in the daily offices.

The twentieth century has made many changes in the patterns of monastic life, but the relation of dormitory to church remains a central concern. In the Middle Ages at the Abbey of Fontenay (see illustration 21) the monks' dormitory was located on the second floor above the sacristy, chapter house, and common room; a staircase led directly from the dormitory into the transept of the church. In other respects, contemporary monastic life requires different architectural forms: at Fontenay all the monks, including the Abbot, slept in one open room. At Saint John's the greater complexity of the monks' lives, their participation in education and in administrative work demands the privacy of a study and related sleeping accommodations.

CHAPTER 22: *How the Monks Are to Sleep*

If possible let all sleep in one place; but if the number does not allow this, let them take their rest by tens or twenties with the seniors who have charge of them.

A candle shall be kept burning in the room until morning.

Let the monks sleep clothed and girded with belts or cords—but not with their knives at their sides, lest they cut themselves in their sleep—and thus be always ready to rise without delay when the signal is given and hasten to be before one another at the Work of God, yet with all gravity and decorum.

Perhaps the greatest single difference between a medieval abbey like Fontenay and the modern abbey at Saint John's is in the character of the exterior architecture. At Fontenay, the dormitory windows, which look out onto the gardens to the east or into the cloister, are small as a result of the limitations of stone bearing-wall construction. The massive stone exterior of the medieval abbey has given rise to the popular impression that monastic life is to be walled off from the outside world. The monks at Saint John's do not so conceive it; and the modern



19. VIEW OF MONASTIC GROUNDS AND LAKE SAGATAGAN FROM NEW WING



20. MONASTIC WING (SOUTH SIDE)



21. ABBEY OF FONTENAY, FRANCE, TWELFTH CENTURY (EAST SIDE)

architect, no longer limited to stone upon stone as his basic material, can throw a building open to the ever-changing world of nature through his use of poured concrete frames, which carry the weight of the building and which free wall space for the insertion of glass (see illustration 20).

The monastic wing rests on land that slopes gently toward the lake to the southeast (see illustrations 7, 20). Curved retaining walls frame the driveway that leads to the building, and these walls serve as a sinuous foil to the geometric mass of the building. The horizontality and rectangularity of the wing relates it to the

22. MONASTIC WING FROM NORTHWEST; ENTRANCE





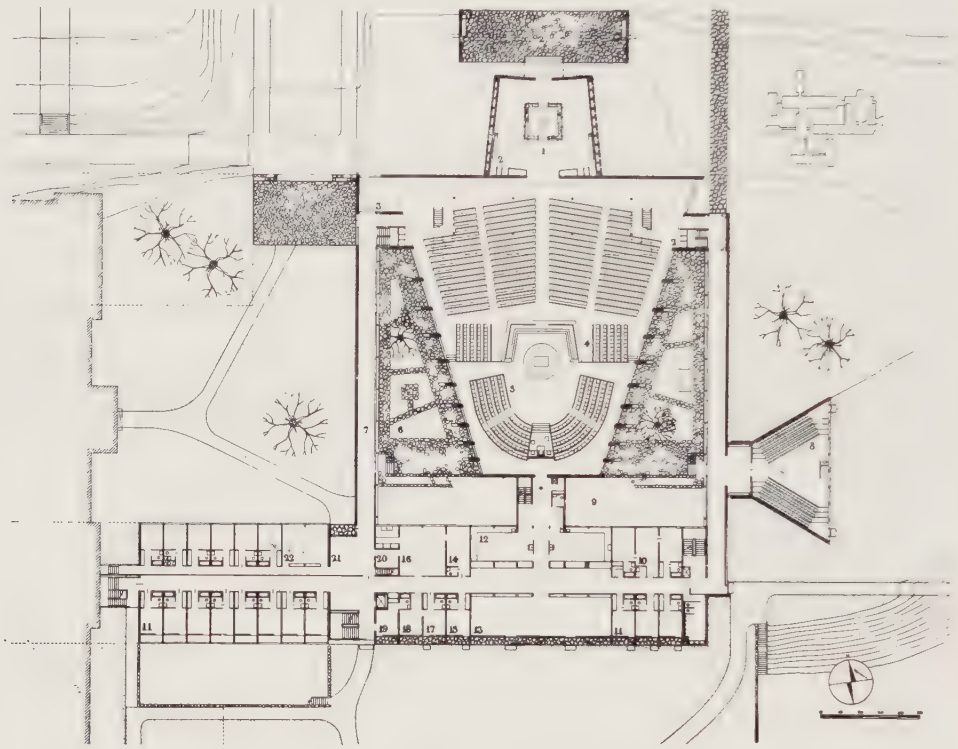
23. MONASTIC WING FROM SOUTHWEST

terrain, but in no sense does it appear to have grown out of the ground. As Breuer says in his book, *Sun and Shadow*,

> A building is a man-made work, a crystallic, constructed thing. It should not imitate nature—it should be in contrast to nature. A building has straight, geometric lines. Even where it follows free lines, it should be always clear that they are built—that they did not just grow. I can see no reason at all why buildings should imitate nature, organic or grown forms.

The exterior views of the monastic wing (see illustrations 22, 23) clearly bear out this aspect of Breuer's philosophy of architecture. The wing plainly states its man-made properties, and yet at the same time it is sympathetically organized to fit into the site.

It is impossible to discuss the plan and use of the monastic building without considering its relationship to the proposed church. The major connecting link that will attach the two structures (new church and new monastic wing) extends from the sacristy (see illustration 24) to the area behind the monks' choir. Thus, in the future, for the daily offices, the monks will descend from their rooms on the second floor via the three staircases and will take their assigned stations in the main hall (see illustration 30) and then proceed directly through the sacristy to the choir stalls in the church proper. On Sundays and for special holy days the

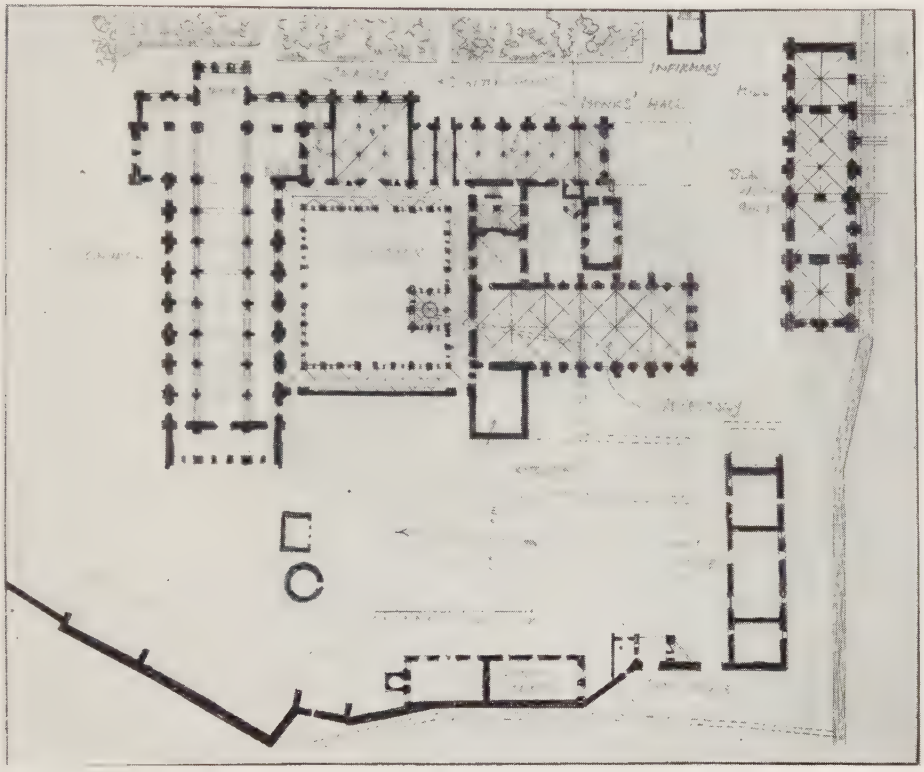


24. PLAN OF MONASTIC WING AND PROPOSED CHURCH, MAIN FLOOR

1. Baptistry
2. Confessionals
3. Shrine
4. Brothers' choir
5. Monastic choir
6. Cloister gardens
7. Cloister walk
8. Chapter house
9. Sunken garden
10. Visiting prelate's suite
11. Priests' private rooms
12. Sacristy
13. Priests' recreation room
14. Abbot's study
15. Abbot's private room
16. Abbot's reception room
17. Subprior's private room
18. Subprior's office
19. Guest Master's room
20. Abbot's chapel
21. Entrance hall
22. Guest lounge

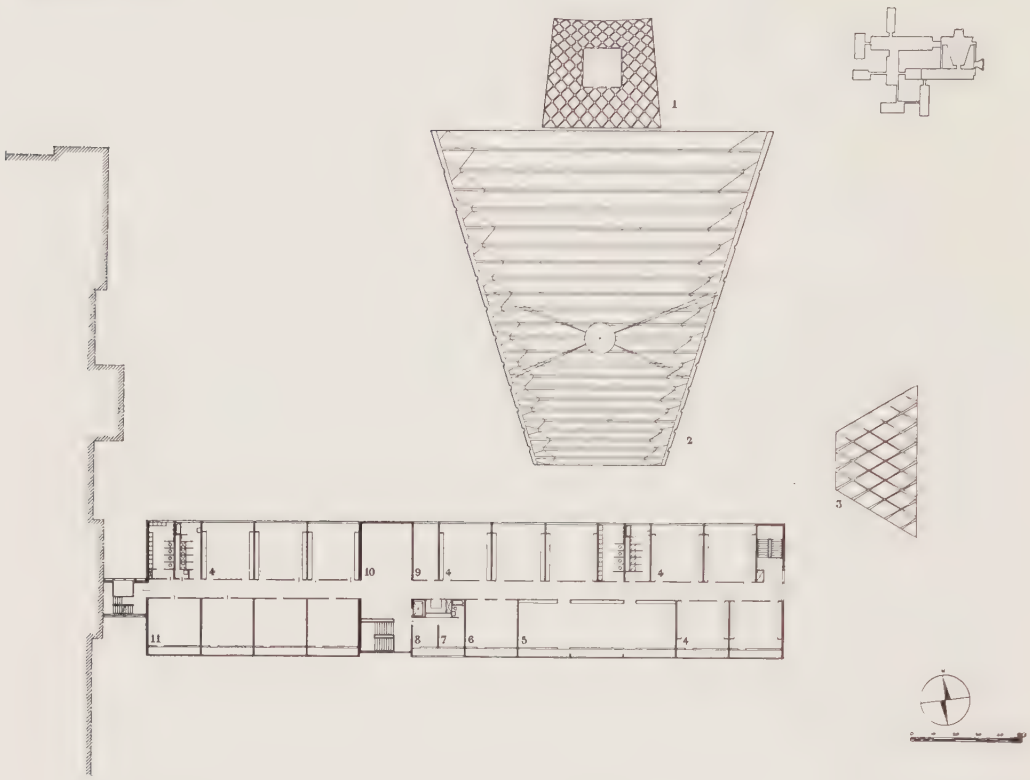
monastic community will commence its procession from the main hallway in two columns, each one continuing along the cloister walks and joining in the main aisle at the front of the church. Successful and expressive circulation between church and monastic building is thus assured for any kind of religious occasion.

The main floor of the new building is divided into the monastic enclosure and the area designated for guests or relatives (see illustration 24). In the medieval



25. PLAN OF FONTENAY, FRANCE (AFTER AYNARD FROM BEGULE'S *L'Abbaye de Fontenay*)

monastery, guests' quarters were isolated in a separate building (see illustration 25). At Saint John's this separation of monastic and lay areas is accomplished by architectural design, as in the front lobby on the north side of the building (see illustrations 28, 29). In the lobby a handsome grilled screen of wood cuts the space into two sections. A door on one side of the screen leads into the Guests' Lounge and bedrooms, while the screen, when opened (see illustration 29), gives access into the monastic enclosure. The granite panel that covers the two stories

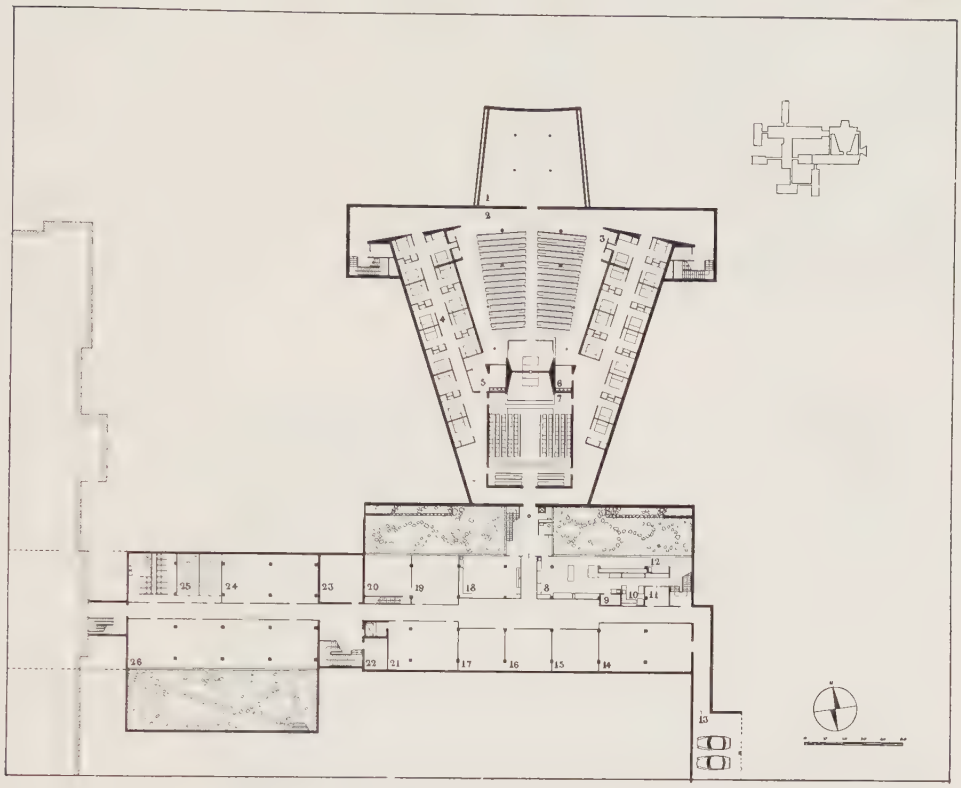


26. THIRD FLOOR PLAN: MONASTIC WING AND CHURCH

1. Baptistry reflected ceiling plan
2. Main church reflected ceiling plan
3. Chapter house reflected ceiling plan
4. Clericate dormitories
5. Clerics' recreation room
6. Music room
7. Master's room
8. Master's office
9. Infirmary room
10. Typing room
11. Clerics' study hall

above the outside entrance is transposed into a pattern by the vertical placement of the rectangular windows (see illustration 22). This pattern is repeated in the brick screen, which partially frames the central staircase (see illustration 29). Dull red bricks impart to the floors a rugged and rough texture, which Breuer admired at the German Abbey of Maria Laach.

The main hallway to the left of the lobby (see illustration 30) leads past the elevator and gives access to the sacristy, the Fathers' recreation room, and the private rooms for retired monks. The space of this entry complex is not divided but molded in a fluid manner. Lighting by cylindrical perforated fixtures emphasizes the play of textural contrasts between brick floors, granite slab walls with

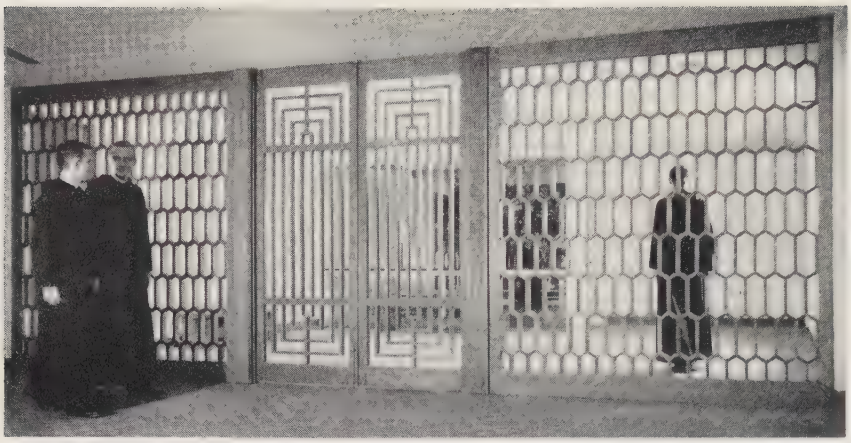


27. BASEMENT PLAN: MONASTIC WING AND CHURCH

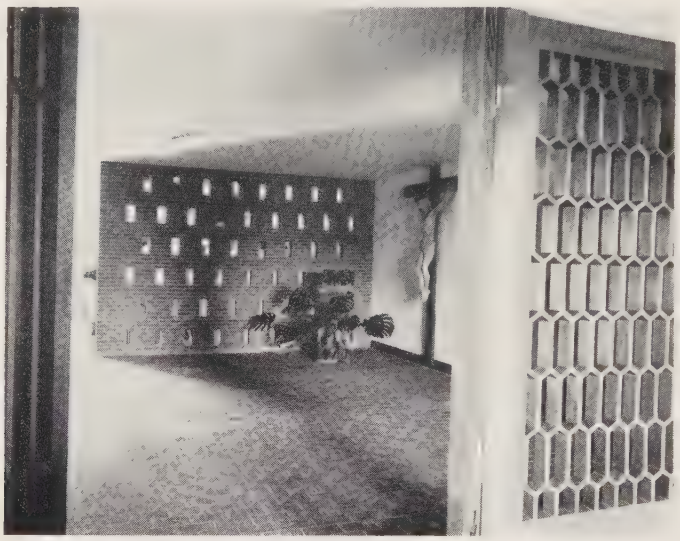
1. Mechanical equipment room
2. Parish and high school chapel
3. Confessionals
4. Private chapels
5. Sacristy
6. Sacristy
7. Brothers' chapel
8. Sacristan's storage
9. Vault
10. Host bakery
11. Wine storage
12. Flower room
13. Garage
14, 15, 16, 17. Storage
18. Lay server's sacristy
19, 20. Archives and research
21. Mechanical equipment room
22. Barbershop
23. Vault
24. Workshop
25. Locker room
26. Brothers' recreation room

inscriptions, and rough, painted concrete ceilings with the imprint of the forms clearly indicated. The Abbot's quarters are centrally located directly off the front lobby of the new wing. Across the lobby in the monastic enclosure is the subprior's office and sleeping quarters. Since he is the Abbot's secretary as well as an official of the monastery, the location of his office directly across the hall from the Abbot is logical (see illustration 24).

The basement level contains the Brothers' recreation room, two utility rooms



28. LOBBY OF NEW WING

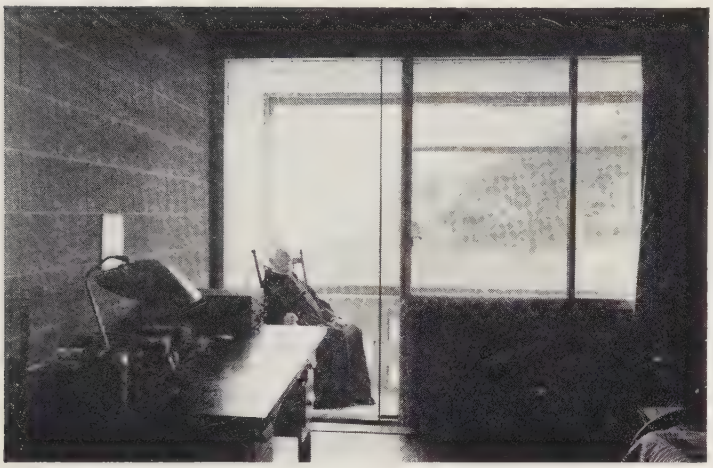


29. LOBBY, LOOKING INTO MONASTIC ENCLOSURE

for conversion of steam into hot air and hot water, rooms for work clothes, and storage and hobby rooms (see illustration 27). On the north side of the basement, directly under the main sacristy, are rooms for the archives of the Abbey, a supplementary sacristy, a bakery for the sacred hosts, wine storage, and a room for flower preparations. This part of the wing is connected directly to the lower level of the church—to a Brothers' chapel and private altars. The entire top floor (see illustration 26) is devoted to the clericate with dormitory compartments, studies, and recreation rooms, while the second floor contains private rooms for the Fathers. The Prior, Father Clarus Graves, who is appointed by the Abbot and who helps the Abbot with the administration of the monastery, has his office and bedroom on this floor.



30. HALLWAY AND INSCRIPTIONS



31. FATHER ROMAN HOMAR ON HIS PORCH

The guest rooms are furnished with modern furniture and lamps (see illustration 33), while the monks' rooms are furnished according to each individual's needs. Preferences were determined from the answers to a questionnaire sent to all the monks. Father Roman Homar's is typical of the rooms assigned the retired Fathers (see illustration 31). Father Homar, who is ninety-three years old, was a missionary with the Chippewa Indians for fifty years and speaks Chippewa better than most Chippewas of today. He chose to keep his favorite rocking chair and oversized bed. Since he no longer can read, he has been allowed to have a short-wave radio. His room has concrete block walls with one side painted bright blue and the other white. The monks were given the opportunity to choose among the following colors for their rooms: vermilion red, cadmium yellow, cobalt blue, white, and three shades of gray. These colors and values are contrasted with



32. FATHER VITUS BUCHER IN HIS ROOM



33. GUEST'S BEDROOM

the vertical paneling of ash, which divides the living-sleeping area from the entrance area. Each entrance is flanked by wardrobes and in the retired monks' quarters by a private bath. The screened porch in which Father Roman is sitting is entered through a glazed sliding window.

In contrast to the rooms on the first floor, those on the second without private bath have more space and greater flexibility for furniture arrangement—bookshelves, bed, desk, and easy chair (see illustration 32). In these rooms for the younger monks a partition of ash wood separates wardrobes and wash basin from the rest of the room. As in Father Roman's room, the window frames, which hold fixed or movable double-glazed windows, are set away from the walls and ceilings and thus create a subtle shadow line; these shadow lines in turn frame the parti-



34. FATHERS' RECREATION ROOM

tion walls. This detail of designing animates the interior surfaces of the rooms and reveals, at the same time, the nonsupporting nature of the interior wooden partitions and of the screen wall that separates exterior from interior.

The three recreation rooms (see illustrations 34, 35, 36) all on the south side of the building, serve monastic life in both a specific and a general manner. Directly after dinner at noon and after supper in the evening the monks spend approximately half an hour in their respective recreation rooms. Mailboxes, card tables and small groupings of chairs create an informal atmosphere. Since no one speaks during meals, these gatherings make possible the exchange of views, and the monks are brought together twice a day as an informal family community. During the free hours in the afternoon these rooms are used by smaller groups.

The Fathers' recreation room (see illustration 34) is divided into two unequal parts by a handsome two-way fireplace made of granite slabs framed with red brick. The smaller area is for music and is decorated by a photomural of the fourteenth-century mosaic of the Baptism of Christ from St. Mark's in Venice. Sliding glass doors in each of the six twelve-foot bays open onto the screened porch from which two doors lead into the gardens. Textures of brick floor, concrete ceiling, and granite inside walls, and the changing transparencies of the continuous wall



35. BROTHERS' RECREATION ROOM

of glass create variety in the fluid spaces. Yet the concrete piers on both sides of the room and the fireplace state clearly the structural continuities upon which the space depends.

The recreation room for the Brothers (see illustration 35) is located in the west end of the lower level at the intersection of a future proposed wing, which will include living quarters for the Brothers. With the exception of those who serve as nurses and porters and who care for the retired monks, the Brothers' duties do not extend beyond the working hours of the day. Thus their recreation room is used more extensively than is the Fathers' room. The room has a continuous strip of high windows interrupted only by concrete piers; these windows open onto a sunken garden. As in the case of the Fathers' room, a fireplace faced with heavy granite blocks and framed by bricks set at an angle divides the room into two unequal areas. The smaller section contains a pool table which is constantly in use during the established recreational hours. The end wall is decorated by a large photomural depicting Joseph's Dream and the Flight into Egypt from a twelfth-century mosaic in the Norman Knight's Chapel in Palermo, Sicily.

The top floor of the new wing (see illustrations 36, 37, 38) is devoted entirely



36. CLERICS' RECREATION ROOM



37. STUDY HALL FOR CLERICS



38. CLERICS' DORMITORY

to the clericate: the floor plan (illustration 27) outlines space for dormitory sections, study halls, recreation rooms and the Master of the Clerics' quarters. All study takes place in the monastic wing, while classes, about twenty hours a week, are conducted in the old quadrangle. In addition to the educational program, which prepares them for ordination, the clerics attend the daily divine offices with the Fathers. The Abbot conducts weekly spiritual conferences on the Rule of Saint Benedict for the clerics; and Father Jeremy Murphy, Master of the Clerics, conducts the *culpa*, an open conference at which clerics who are guilty of infractions of monastic discipline accuse themselves before the assembled clericate. Three times a week there is public reading from the Scriptures. The main goal of the cleric's religious education is his preparation for ordination to the priesthood and for the obligations of monastic life.

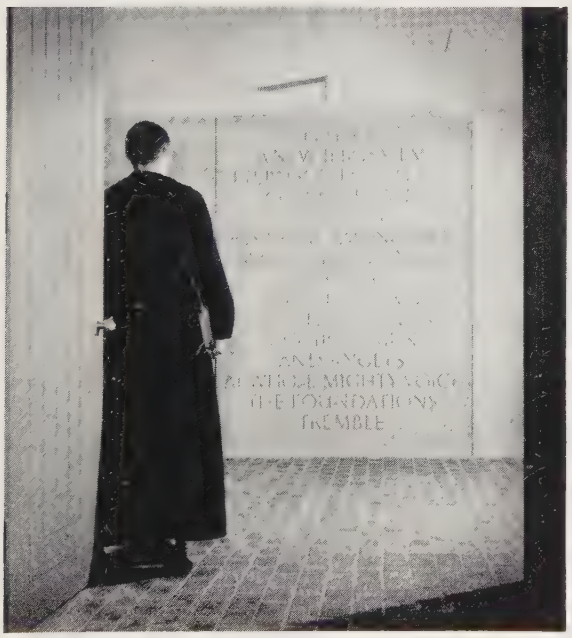
The clerics' recreation room (see illustration 36) centers around a handsome brick fireplace and includes a reference library. A screened balcony extends the entire length of the room. The music room, which opens into the end of the recreation room (see illustration 36), has sufficient space for occasional performances of a recently established string quartet, practice space for the choir acolytes and provisions for the enjoyment of records. Three study halls (see illustration 37) and the quarters of the Master of the Clerics constitute the remaining areas on the south side of the third floor, while the north side houses the dormitory sections—one section for eight clerics—divided by built-in lockers (see illustration 38). In the foyer, directly above the central lobby, a partition sets off an area for a typing and filing room. This third floor is the home of the clerics for their six years of study in philosophy and theology.

The Abbot's quarters off the front lobby include reception room, study, bedroom, and chapel. The Abbot's reception room (see illustration 39) looks out to the north over what will eventually be the sunken garden of the cloister and the future church. Dark-stained oak floors, which harmonize with the monks' habits, and walls paneled with red oak in a board-and-batten construction impart a pleasant warmth and peacefulness to the room. A bushhammered concrete fireplace of bold design, attached to a structural pier, projects into the room and is flanked by storage cabinets and bookshelves. A handsome interpenetrating desk with drawer space for current files is placed centrally with groups of modern chairs on either

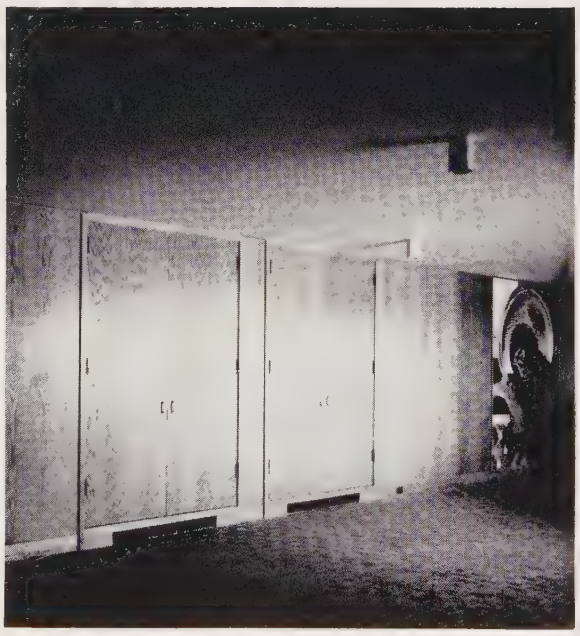


39. ABBOT'S RECEPTION ROOM

40. PASSAGEWAY FROM SACRISTY; CENTER INSCRIPTION



41. SACRISTY



side. Two doors give access to this room: one from the lobby area open to guests and the laity and the other from the hallway in the restricted monastic area. In his reception room the Abbot holds the meetings of his Senior Council. Here, also, he composes the talks he gives each week to the Fathers and clerics and each month to the Brothers.

Adjacent to his reception room is the Abbot's office which contains his major files; directly across the hall is his bedroom, which is identical to those housing the retired monks. At one stage in the development of the total plan, Marcel Breuer suggested that this office be placed in the proposed administration building, but the Abbot's multiple role as the elected father of the monks, president of the University, and superior who guides the lives of the dependent priories makes his presence in the monastic enclosure necessary.

CHAPTER 2: *What Kind of Man the Abbot Ought to Be*

The Abbot should always remember what he is and what he is called, and should know that to whom more is committed, from him more is required. Let him understand also what a difficult and arduous task he has undertaken: ruling souls and adapting himself to a variety of characters. One he must coax, another scold, another persuade, according to each one's character and understanding. Thus he must adjust and adapt himself to all in such a way that he may not only suffer no loss in the flock committed to his care, but may even rejoice in the increase of a good flock.

The Abbot's awareness of the architectural qualities of his reception room (see illustration 39) is revealed in the following episode. When the author complimented Father Abbot on the design of his foreign-made typewriter, he replied: "I like my old one, but it didn't harmonize with the desk and the room." This casual remark highlights the Abbot's sensitivity. The room is visualized as a homogeneous design of contrasting textures counterpointed by modern lighting fixtures and by contemporary furniture—all composed in a fluid space scaled to human needs.

Opening off the main hall and directly opposite the inscribed granite slabs is the sacristy (see illustrations 40, 41). This long room with large closets on one side and tables on the other will serve as storage space for vestments and as the vesting room for religious services when the new church is constructed. As already stated,



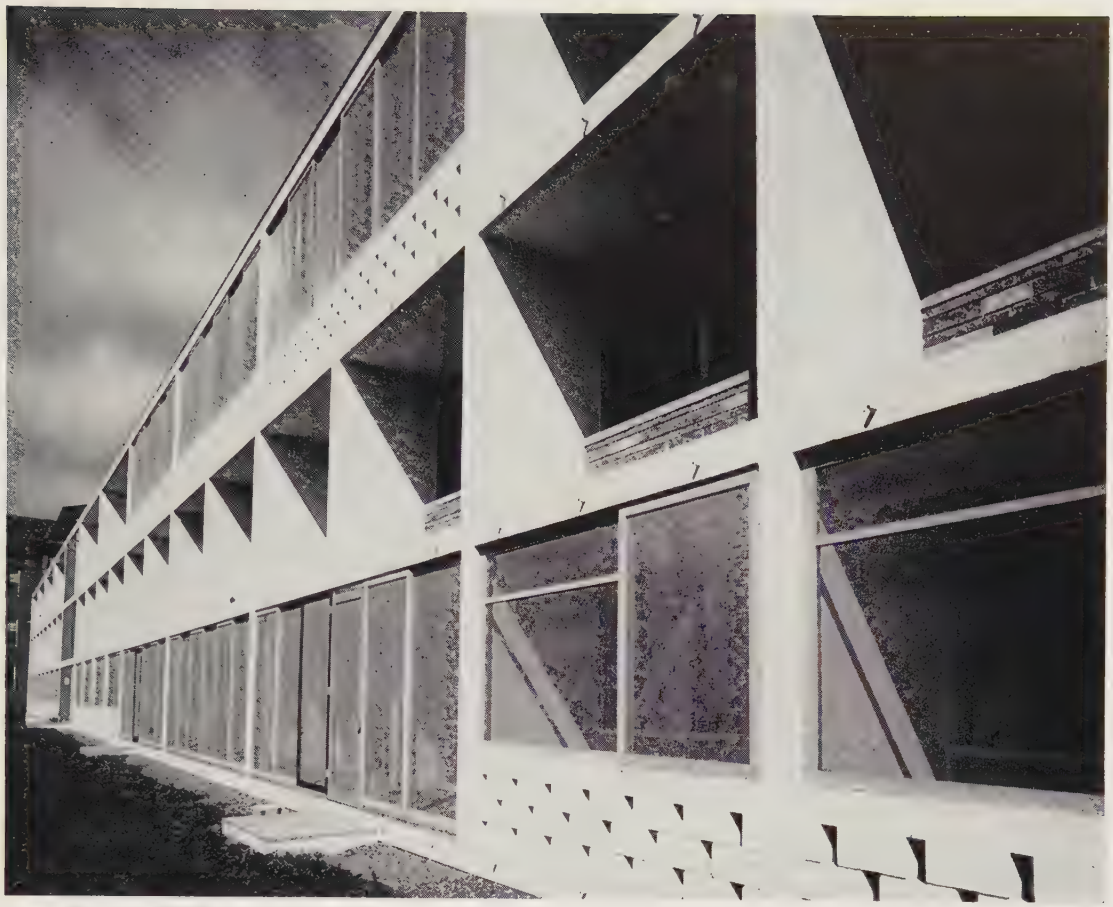
42. ABBOT'S PRIVATE CHAPEL

the processions for daily worship will proceed through the sacristy to the monks' choir. The exterior windows, which open onto the church gardens eventually to be enclosed by cloisters, have mullions arranged in a series of vertical rectangles (see illustration 22). This pattern is repeated in the windows of the Abbot's chapel, which is located beside the north entrance. This simple use of pattern suggests the affinity between sacristy and chapel and distinguishes the rooms from the living quarters that occupy most of the building.

The Abbot's chapel (see illustration 42) is small, only eleven by thirteen feet. It is used by the Abbot for private prayer, for a weekly Mass so that the Blessed Sacrament can be preserved in this building, and for worship by visiting prelates and clergymen. The solid entrance doors are painted blue and are flanked by teakwood screen partitions, which contain transparent glass. The raised area of the chapel is dominated by the simple granite altar, while the floor has space for two benches and two kneelers designed by Breuer and made in the monastery's carpentry shop. The vertical shapes of the screen partitions are repeated in the row of bricks in front of the altar and the mullions that frame the glass windows. Softened daylight filters through the windows and illuminates the cement block walls, to be absorbed by the brick floors. At night artificial light above the suspended blue canopy is diffused over the gilded structural slab ceiling. The whole atmosphere of the chapel is made peaceful by the warm play of reflected light.

Beneath this play of light the rough textures of the masonry walls and the brick floors contrast with the smooth textures of the polished mullions, the windows, and the granite altar. Breuer has designed the chapel in terms of textures, colors, and materials similar to those proposed for the new church. The monks can now live with and react to these qualities and can experience on a small scale the directness, honesty, and power of design that will characterize the proposed church.

All these interior spaces—individual monks' quarters, recreation rooms, study halls, offices, and chapel—are contained in a horizontal mass of three floors and basement, which is 288 feet long. The reinforced concrete frame (see illustrations 43, 44) is boldly shown on the exterior. The columns are spaced twelve feet apart on the lower floors and twenty-four feet apart on the top floor. The entire interior space is also divided in multiples of twelve. This rhythmic use of twelve-foot modules gives artistic clarity to the building and, at the same time, makes each interior space understandable in terms of the exterior forms of the building. On the north side (see illustration 22), the larger twenty-four foot divisions of the



43. MONASTIC WING (SOUTH SIDE)

44. MONASTIC WING (DETAIL)



45. GRANITE BRICKS (DETAIL)



top floor reveal the locations of the clerics' dormitories, while the twelve-foot bays below frame the priests' private rooms. The same readability (the articulate relation between exterior shape and interior function) is manifested on the south side (see illustrations 43, 44). The private rooms for the monks are proclaimed by projecting structural frames, and the recreation rooms for the Fathers and clerics are clearly stated by the balcony, walls, and screens.

Since sun is no problem on the north (the church side) of the wing, the reinforced concrete frames extend only one foot beyond the wall (see illustration 22). In order to control the sun in summer and to capture it in winter, the four-foot extensions on the south serve as dramatic sun baffles, which have both a functional and an artistic quality (see illustration 43). The architect made many diagrams depicting the amount of sun penetration into the rooms at various times of day and in different seasons. The final solution enhances the livability of the rooms and creates dramatic shadows that give the building's surfaces a vital texture of light and shade. These sun baffles, moreover, add privacy to each room not only visually but also acoustically.

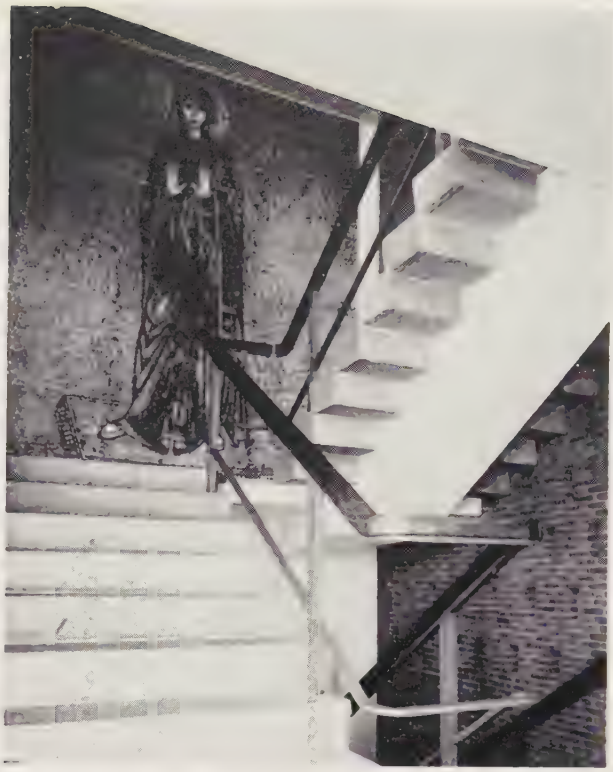
The play of textures on the outer surfaces of the building is created by the retention of the imprint of the wood forms used in pouring the concrete frame. This linear pattern clearly emphasizes the weight of the structural forms; and the concrete block and aperture pattern of the porches balances this weight. Further to express the interior space and to give variety, Breuer has introduced a wall of brick and glass to enclose the stair well (see illustration 23). At the moment, this wall is the natural red of the brick, which the monks like. Breuer, on the other hand, thinks it should be painted, preferably white. The decision in favor of painted or natural brick can be reserved for the future when the interplay between architect and patron has been informed by the new building's visual use in the everyday life of the community.

The detailed illustrations of the building tell a fascinating story of the discovery and new use of local materials. When Breuer first visited Saint John's Abbey, he admired the granite walls and doorsills, and the granite blocks in the foundations of other buildings. The first masonry structure of Saint John's had also been built in local granite (see illustration 6). To keep down the cost of the new wing, however, Breuer planned to use concrete blocks for the exterior instead of brick.

Several priests from Saint John's visited the Cold Spring Granite Company in



46. FIREPLACE IN FATHERS' RECREATION ROOM



47. MAIN STAIRCASE

48. DETAIL OF STAIRCASE



49. FIREPLACE IN BROTHERS' RECREATION ROOM



the neighborhood of the Abbey in June, 1954, and learned about a new granite building block. The structural use of granite slabs had been replaced to a great extent by the wider use of reinforced concrete. The Cold Spring Granite Company had cast around for other markets. Waste granite slabs could be pulverized into poultry grit, which the company made. In the course of this manufacture the company discovered a press that could split slabs into granite blocks about the size of bricks. The company hoped that these could be used for facing buildings.

The priests saw the machine and the bricks and immediately urged the company to contact Breuer's office. In the correspondence that ensued, it was discovered that the material could be supplied in random thicknesses and in a variety of colors at a considerably lower cost than traditionally finished granite. Breuer wanted two sizes of bricks in a limited selection of colors. Finally, the red and green blocks were eliminated and relatively uniform sizes (two inches and four inches thick) were used. After several trial walls had been constructed by the Cold Spring Company, the monks voted their approval and deliveries were started.

Almost seven thousand square feet of this split-faced granite brick has been used in the monastic wing. The dark gray blocks had to be sandblasted to make them blend with the color pattern Breuer wanted. The final effect of these granite brick walls is rich in textural variety and color tone, a variety and tone enhanced by the remnants of quartz that pick up and reflect the sunshine (see illustration 45). Since the completion of the building, several outstanding architects have visited Saint John's and the Cold Spring Granite Company, and are now using the new material. The Benedictines in the past have tended to make use of local materials. Rarely, however, in the twentieth century, in spite of our extraordinary technical advance, has a new material been discovered locally by the patron.

Two further unusual uses of materials appear inside the monastery. The huge granite slabs or screens on which the three inscriptions are carved (see illustration 30) serve as the partition between the corridor and the Fathers' recreation room. More dramatic however, are the granite steps, which are notched to fit on and cantilever out from the major concrete supports of the stairway (see illustrations 47, 48). The detailed photographs show the dramatic use of the principle of cantilevering. The granite blocks do not extend to the outer walls of the staircase, and the resulting play of shadow lines is clearly visible. This play of shadow line in the staircase is indicative of the sensitive handling of light and shadow and sculptural form that is apparent in every detail of the new building.



Marcel Breuer is a member of a mythical club of staircase designers, but if a fireplace club were organized he would be the president. There are four fireplaces in the monastic building (see illustrations 36, 39, 46, 49), each different and each exciting as a formal organization of space with sculptural interest. The sculptural form of the fireplace in the Fathers' recreation room is now decorated and made more articulate with the addition of a Madonna and Child in wrought iron and a Saint Benedict by Joseph O'Connell, formerly a member of the Art Department at Saint John's.

The new monastic wing at Saint John's marks the first step of an extensive building program. In various ways and very simply Breuer has realized a true monastic character in the design of this building. The private room is a retreat for the monk. The deep recess of the space says that. On the other hand, the large windows create a psychological effect of openness, which is quite consistent with withdrawal. The wood screen wall that defines the dressing area and at the same time sets the rest of the room somewhat away from the corridor heightens the atmosphere of privacy. The values of simplicity are here. The homely texture of the white-painted walls of concrete block is peaceful and quiet. Large expanses of wall have been left completely plain. Corridors are quiet, brick-paved, with white-painted concrete walls and ceilings. A series of subtle transverse forms created by the introduction of artificial and natural light at intervals modulates the great length of the corridor and holds it to human scale. In other places Breuer achieves this scale by the simple repetition of small elements, as in the openings of the enclosure grill or the perforations of the brick curtain wall at the main staircase.

This building, in all its aspects, spells out in bold terms the qualities that are to be expected in subsequent stages of the program. Dynamic use of structural principles, new concepts of the use of materials, sensitive exploitation of textural potentials—all inherent in the new wing—are prophetic of what is to come.

In his letter to the twelve architects Abbot Baldwin wrote:

> The Benedictine tradition at its best challenges us to think boldly and to cast our ideals in forms which will be valid for centuries to come, shaping them with all the genius of present-day materials and techniques.

The completed monastic wing stands as a positive answer to the Abbot's statement of the Benedictine tradition and its challenge.

IV

Visual Arts in the New Wing

THE ART OBJECTS INCORPORATED IN THE NEW MONASTIC WING HIGHLIGHT THE successful, collaborative relationship between the Benedictines and their architect. Breuer wanted to decorate the common rooms of the new wing with large photomurals of medieval mosaics and paintings. The monks approved of this idea and together monks and architect worked out a list of subjects. Other elements of the visual decor were contributed directly by the monks. They salvaged a fine crucifix from its original location on the shores of Lake Sagatagan and made several objects of religious art which are now integral parts of the new building.

The windows in the Abbot's chapel (see illustration 50) were designed by Josef Albers, a colleague of Breuer's at the Bauhaus in Dessau and at present chairman



50. WHITE CROSS WINDOW BY JOSEF ALBERS



51. GUESTS' LOUNGE WITH PHOTOMURAL

of the Department of Design at Yale University. Since the entrance wall of the church will make extensive use of glass, the Abbot's chapel offered an opportunity to experiment with a new process of manufacturing glass. Breuer originally gave Albers the option of redesigning the window mullions, but Albers preferred to use those already designed for this space and for the sacristy windows (see illustration 22). The system of staggered rectangles of mullions became a framework, which Albers further subdivided by rectangles of color value, which vary from white to dark gray. In a brochure on this window soon to be published by the Saint John's Press, Albers writes:

> The resulting substructure of overlapping rectangles permitted me to arrange three adjacent shades of opalescent white in such a way that the rectangles appear not only translucent (visible through each other) but also in different distance. To these subdued whites I added the lightest white obtainable in glass, for the two thin lines forming the suspended white cross in the center of the window—with elongated horizontals—and spatially distinctly separated from the three lower shades. With these opalescent shades I have tried to realize an old wish of mine, namely to compose a church window consisting of varying densities of white only. This, as I learned to my surprise later, in the Cathedral of Altenberg in Germany, had been considered the norm for church windows by the Cistercian Order during the thirteenth century.

Each piece of photosensitive glass is set in the mullions without the usual divisions of leading found in all medieval and in most contemporary stained glass windows. As Albers points out, traditional stained glass in a Gothic cathedral can be perceived only by transmitted light and, as a result, is grayish black when viewed from the outside during daylight and black when viewed from the inside at night. The chapel window, made by the new development division of the Corning Glass Company, is visible in both transmitted and reflected light; thus its design is visible from both exterior and interior day and night. The shift from natural daylight to artificial light at night reverses the values so that the whitest section of a panel of glass becomes the darkest at night when artificial light is reflected from the window's surface. The window is thus a study in changing values, the product of a new method of using the play of light on and through photosensitive glass.

The design of the window is a forceful composition of smaller rectangles within

larger ones, tied together by a thin, white cross. The effect of the white cross window is described by Albers as follows:

> Above a ground of indistinct distance, light accumulates toward the middle and culminates in the whitest light of the extended cross, the center, extending wide arms to the farthest ends.

Light, as it penetrates the windows and is reflected from the white walls, gives vibrancy to the gilded ceiling and to the blue canopy above the altar. The dignity and solemnity of the chapel are enhanced through the simplicity and directness of the design.

To decorate recreation rooms, entrances, sacristy, and staircase, Marcel Breuer suggested the use of large photomurals. In the photographic process of enlarging a small photograph into a large mural, a softening of outline and a reduction of the illusion of depth occurs resulting in a surface that makes the photomural different both from the original photograph and from the original mosaic or tempera panel. These murals, in blacks and grays, contrast effectively with the rough texture of the concrete block walls, brick floors, and ceilings. Some of these murals are visible in the background of illustrations 34, 35, 41, 46, 47, 49. Framed by architectural elements, they enhance the spatial qualities of the several rooms by their size. The original monuments, from which these murals were made, are all medieval: mosaics from St. Mark's in Venice, from Palermo; tempera panels from Florence and Siena; and Russian icons of the fourteenth and fifteenth centuries.

In the guests' reception room (see illustration 51), where the monks receive friends and relatives, the photomural depicts Christ Calming the Waters, a mosaic from St. Mark's made between 1150 and 1200. The strong outlines of the figures, the clarity of the inscription, and the absence of spatial illusion—all preserve the plane of the wall. In all these murals, the sense of the wall, as an element terminating space, is emphasized and contrasted with the spatial extensions of rooms through glass walls and windows. This use of varied religious subjects to beautify the larger rooms in the monastic wing is a sympathetic, meaningful, and artistic solution to the problem of wall decoration.

On the wall in the monastic side of the lobby the monks placed a large wooden crucifix (see illustrations 29, 52, 53). The Abbot and other monks had often seen this statue in its original location in a shrine on the lake shore. They felt that, weathered as it was through exposure, it possessed sculptural qualities worthy of the new building. It was cleaned and placed against the concrete wall beside the perforated brick screen that separates the staircase from the lobby. This crucifix was carved in about 1880 by Father Cornelius Wittman. A Bavarian by birth, Father Cornelius was one of the five monks who made the first hazardous journey from Saint Vincent's Abbey in Latrobe, Pennsylvania, to St. Cloud. He was for a time prior of the first monastic settlement, and it was he who started the free school in 1856. He was a member of the community in 1866 when the first Abbot was elected. He lived to be ninety-three years old, and in the later years of his life he devoted much time to the landscaping of the Abbey and its grounds. The forceful, primitive starkness and vigor of his work, reflecting as it does the pioneering spirit of the founding monks, transcends the more sentimental and neo-Gothic forms, which too often dominate latter-day religious sculpture.

Out in the monastic grounds between the new building and the lake is a newly constructed pergola. It is placed at the convergence of several paths, which lead from the monastic wing to Lake Sagatagan and along the south side (the lake side) of the buildings. Consisting of four walls of concrete blocks attached by timbers to a central pier of split-faced granite bricks (see illustration 54), it was designed by Father Joachim Watrin. Father Joachim used to teach classes in drawing (much in the spirit of Father Cornelius, who, upon his arrival in the Minnesota Territory, had included drawing in the first priory school). Father Joachim was instrumental in creating geometric forms for liturgical symbols, and it was Father Joachim who discovered the approximation of the golden section in the design of the new church.

Last summer Father Fintan Bromenshenkel and the clerics erected this structure under Father Joachim's direction. They used materials left over from the construction of the new wing. The four walls have vertically shaped apertures, which correspond to those on the porches of the retired monks' quarters, and also to those on the brick wall that screens the staircase in the new wing. The end of



52. CRUCIFIX BY FATHER CORNELIUS WITTMANN (1880)



53. DETAIL OF CRUCIFIX



54. SITTING AREA DESIGNED BY FATHER JOACHIM WATRIN AND CONSTRUCTED BY CLERICS

each wall of the pergola lines up with one face of the central pier; this mathematical arrangement is repeated in the wooden superstructure that ties the four walls to the central granite pier. Flowers will be planted around the pier, and benches will be placed against the cement-block walls. The problem of painting was solved by Father Joachim who decided not to repeat the white of the monastic wing on the walls but to paint the cement blocks gray and the wooden members white. In every detail the simplicity of the structure respects and echoes the design of the monastic wing.

In accordance with the Benedictine tradition, the monks of Saint John's Abbey have made in the past and are today making many liturgical objects. When Abbot Baldwin was ordained in 1933, he designed and made his own chalice (see illustration 55, right). The cup is sterling silver gilded, while the base and stem are copper, which has been gilded. The Abbot not only worked in metal, he was also an enthusiastic photographer before his election made it impossible for him to continue his hobbies. Father Hugh Witzman's chalice, made only a few years ago, is of sterling silver with a granite node.

The wooden tabernacle, crucifixion, and candlesticks on the altar of the Abbot's chapel (see illustration 56) represent the cooperative artistic effort of several members of the Saint John's community. The simple, handsome tabernacle was designed by Father Cloud, and constructed by Brother Hubert. Joseph O'Connell, formerly the sculptor in the Art Department, executed the lettering. Father Hugh designed and made the set of four brass candlesticks and the small but forceful sterling silver crucifixion.

The whole spirit of this community effort was stated over one hundred years before by Father Boniface Wimmer, Abbot of Saint Vincent's in Latrobe, Pennsylvania. Father Boniface wrote:

> I am determined to have our monasteries not only schools of religion and of the sciences, but also nurseries of the fine arts, in order to develop a better taste for these things and to keep from our people the American mercenary spirit which thinks of nothing but how to make a living, because necessity demands it, and example encourages it. . . .



55. CHALICES BY FATHER HUGH WITZMAN AND ABBOT BALDWIN DWORSCHAK

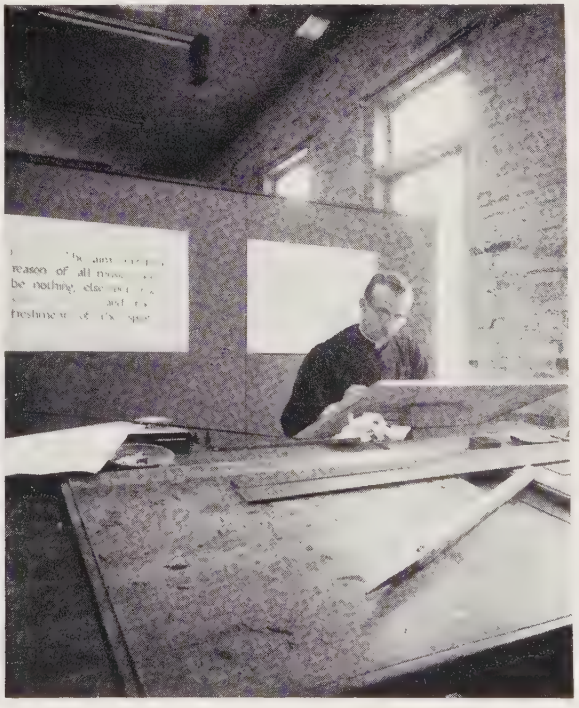


56. CRUCIFIX, TABERNACLE, AND CANDLESTICKS DESIGNED AND MADE BY THE MONKS

57. ART DEPARTMENT



58. CLERIC AT WORK ON CALLIGRAPHY



Another area of achievement in the visual arts is the series of inscriptions in the main corridor of the new wing (see illustrations 30, 40). Since the hallway is outside the church proper, the monks felt no compulsion to choose the three quotations from the Rule of Saint Benedict or from the Scriptures. On the other hand, the Abbot felt that all the monks should have the opportunity to suggest subjects and appropriate wording. The two side inscriptions are interpolations on the Benedictine Rule while the central one (see illustration 40) is based on the Apocalypse. The side inscriptions, which are short, are:

UNDER
THE BANNER OF
OUR LORD AND KING
UNITED
IN HIS SERVICE
TILL DEATH

and

SHARING
CHRIST'S SUFFERINGS
BY PATIENCE
ONE DAY TO SHARE
IN HIS
KINGDOM.

Above the latter inscription is the anchor and cross, the symbol of hope, representing the sacrifice of the cross as a pledge of everlasting life and the hope of the world. These inscriptions were designed by Frank Kacmarcik who was formerly a member of the Art Department at Saint John's and who now has his own design studio in St. Paul. The three panels are each six feet wide and are separated by plain granite panels. Color has been applied to the letters to increase their readability.

The future creativity of Saint John's Abbey and University will depend largely on the recently established Art Department. The nature of the curriculum and the variety of artistic experiment in all media bodes well for future generations interested in the visual arts. Presently, thirty-one semester courses are being offered:

three semesters of the history of art conducted by Sister Johanna Becker, O.S.B. and twenty-eight semester courses in basic design, architectural design, graphics, and typography, plus workshop in all media. Father Cloud, chairman of the department, teaches architectural design, while Paul Dufour gives courses in two-dimensional and three-dimensional design and ceramics. Two other members of the department, Keefe Baker and Father Caedman Wahl, give courses in drawing and graphics, in typography and calligraphy. As can be seen in the two views of the recently remodeled Art Department wing (see illustrations 57, 58), mobiles, abstract painting, sculpture in iron and wood, calligraphy—all exhibit the broad scope of artistic activity in the contemporary mode, now being offered at Saint John's.

In the 1930's Abbot Alcuin invited Brother Clement Frischauf, O.S.B., a monk from Sechau Abbey in Germany, to decorate the choir of the old church (see illustration 62). Brother Clement, who painted in the style associated with the Abbey of Beuron, had worked at Monte Cassino in Italy. This Beuronese style, which originated in the late nineteenth century, utilizes early Christian, Byzantine, and some Egyptian forms. The choir murals of Saint John's are typical of this schematic, mural but somewhat cold style. In spite of the iconographic interest of the old church murals, they do not reflect as creative a community attitude as that revealed in the choice of Breuer as architect and in the sensitive and perceptive role that the monastic community has played in the design, construction, and visual decoration of the new wing.

V

Proposed Church

THE NEXT STEP IN THE BUILDING PROGRAM AT SAINT JOHN'S IS THE CONSTRUCTION of the church with its baptistry, its attached cloisters, and the adjacent chapter house. Since the church is of special significance to the monastic community, its design was discussed and analyzed in great detail by the architect and the monks. Father Cloud's statements of the role of the monastic church provided a basis for these continuing discussions:

> To the monastic church will come the choir of monks to join with the whole church in the liturgy of praise. Born to monastic life through the second baptism of their profession, they will gather daily near the altar to center their lives in Christ. Baptistry, altar, choir will form the axis of

> the church, and the building will thus express the sacramental polarity of monastic life.

On the basis of this incisive statement of the meaning of the church—a statement expanded and clarified in discussion with the monks—Breuer has attempted the design of a church to satisfy the community's physical and spiritual needs.

The present church at Saint John's occupies two-thirds of one side of the old quadrangle (see illustration 60). Its façade of twin towers faces east, with the choir to the west. This integration of church and living quarters resembles somewhat the medieval arrangement in the French Abbey of Fontenay (see illustration 21); yet the circulation in and of the areas around the quadrangle are completely different in the two monasteries. Since Saint John's is a university as well as a monastery, many different functions are clustered in the buildings that flank the quadrangle; and all the circulation in the modern Abbey is handled by internal corridors, not by cloistered walks as at Fontenay (see illustration 74). Thus the exterior arrangement of the "old quadrangle" at Saint John's gives no clear indication of the various uses of the interior parts of the buildings. At Fontenay, on the other hand, an integral relation between exterior form and interior function is manifest. Only the mass of the church states itself clearly in the Saint John's quadrangle. The new church must reveal its function and, at the same time, be oriented in such a way as to indicate its relation to the group of monastic buildings that it is to dominate.

When the quadrangle was constructed in the 1870's and 1880's, no thought was given to the eastward orientation of the church. The nineteenth century and, for that matter, the centuries since the Reformation, have paid little attention to the medieval practice of facing the church choir toward the east. As the comprehensive plan of Saint John's developed, it became apparent that the new church and monastic wing must be built on the unoccupied land east of the present quadrangle. In order to give the church prominence, it would have to face north. Breuer accepted this unusual and difficult orientation and transformed the façade of the church into an artistic attribute through his handling of the projecting baptistry, the bell banner, and the screen wall of glass (see illustration 59).

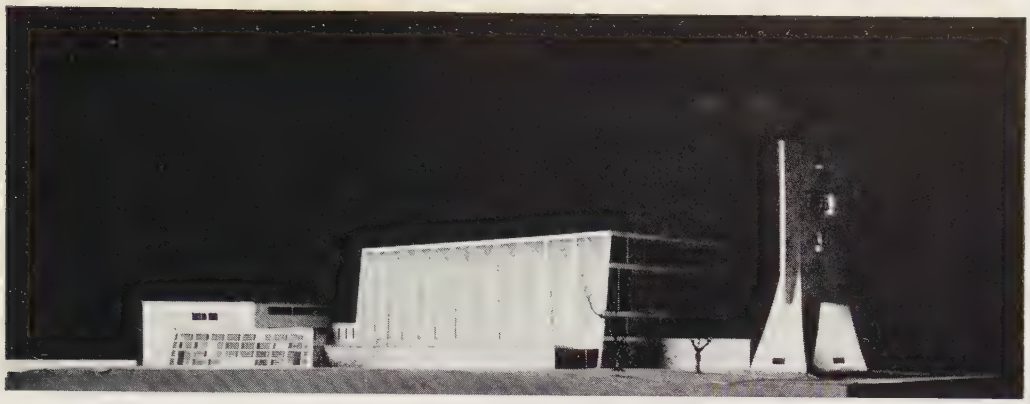
The plans provide free entrance for the laity under the bell banner and through the baptistry of the church's northern front. As Father Cloud stated:



This is the main entrance to the church. It is this portal on the main axis that has traditionally held a symbolic character. Christ said 'I am the door. If anyone enter by me he shall be safe. . . .' (John 10:8). Immediately beyond the door is the baptistry—the believer's first contact with Christ. This central portal is anticipated and framed by the larger arch of the banner. In a sense the bell banner is the entrance—in a monumental sense. There is a recall of the door in the larger opening of the arch beneath the banner. The main door and the banner arch form one symbol repeated.

The two-story element connecting the new church and the new monastic wing provides circulation between choir and sacristy on the main floor and between the lower church and lower sacristy on the basement level. These passageways give the Fathers, clerics, and Brothers easy access for the daily offices, while the double walks in the new cloister will be available for Sunday services and holy festivals. The college students can enter the church either through the baptistry or through the covered entrance on the northwest corner. In contrast to this new and planned arrangement the old quadrangle is limited in its provisions for circulation, since the main corridor of the east wing is the only connection between monastic quarters and church. When the monks line up at their regular stations for the procession into the present church, all student traffic in this unrestricted part of the old quadrangle must cease. The proposed separation of the monastic areas from the daily life of the University will mark a definite improvement in circulation and in the patterns of the monastery's daily life.

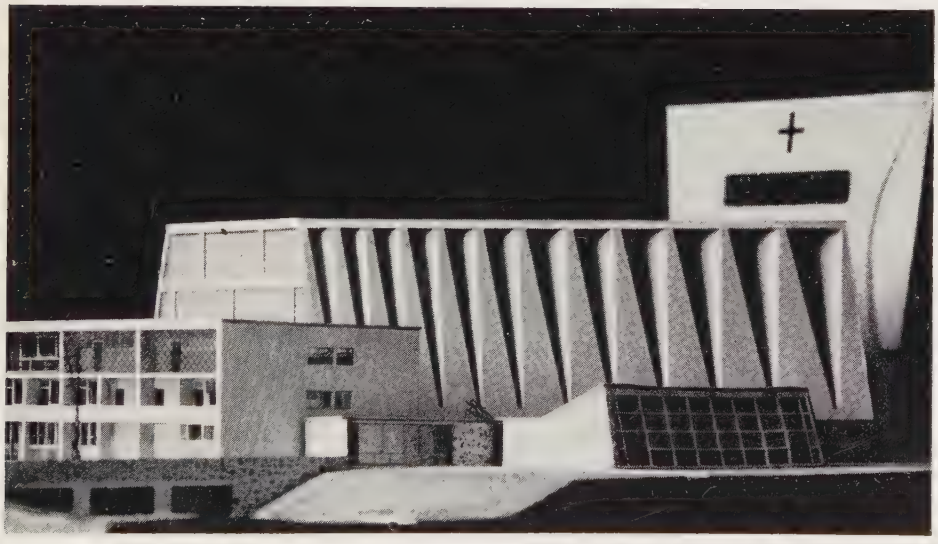
The present church (see illustrations 6, 60) was constructed between 1879 and 1882 under Abbot Alexius Edelbrock, who, as a boy, had rowed the five monks across the Mississippi when they arrived at St. Cloud in 1856. Father Colman Barry tells the story of the present church plans in his history of Saint John's, *Worship and Work*. Abbot Alexius saw the plans for a new cathedral that was to be erected by Bishop Krautbauer of Green Bay. The Abbot was so impressed with these designs that he sent two monks with architectural experience to study them. To the amusement of all, the monks discovered that the Green Bay plans combined features from the bishop's home-town church in Bruck, Bavaria, with features of Saint John's own Assumption Church in St. Paul. These plans were remodeled and accepted by the community chapter at Saint John's Abbey.



59. MODEL OF MONASTIC COMPLEX FROM NORTHEAST



60. OLD QUADRANGLE AND CHURCH (1870's, 1880's)



61. MONASTIC WING, CHURCH, CHAPTER HOUSE

The church, as originally conceived by Abbot Alexius, was to occupy the entire north side of the quadrangle. Lack of funds, however, resulted in a much smaller church with a more limited seating area and a shallow choir (see illustrations 60, 62). At no time in the planning was there any intention of having the daily offices recited in the church proper; instead, a small chapel in the quadrangle was set aside for this purpose. The liturgical revival of the 1920's resulted in a revision of the schedule or horarium for the divine offices, and by 1928, all daily hours were recited in the Abbey church. This shift necessitated the enlargement of the choir stalls, the installation of an abbot's throne, and a deepening of the sanctuary. The main altar was moved forward to its present location at the crossing (see illustration 62). These architectural changes, completed in the late 1920's, reflect the whole spirit of the liturgical revival. Discussing this revival, the Baltimore *Catholic Review* in 1930, stated:

> For this progress much credit is due the Benedictine Fathers. The world over they are teaching a love of the Mass, the love of sacred music and an appreciation of religious art and architecture.
>
> If all of us could catch the enthusiasm of the Benedictines in making known the meaning of the Mass, of making liturgical music appreciated by reciting its beautiful lessons, of arousing a greater appreciation in artistic statuary and captivating architecture, the Catholic Church would be more admired and appreciated by our non-Catholic friends. . . . Indeed, the liturgical movement, as fostered by the Benedictines, is opening to tens of thousands of our Catholics vistas of which they had not known before.

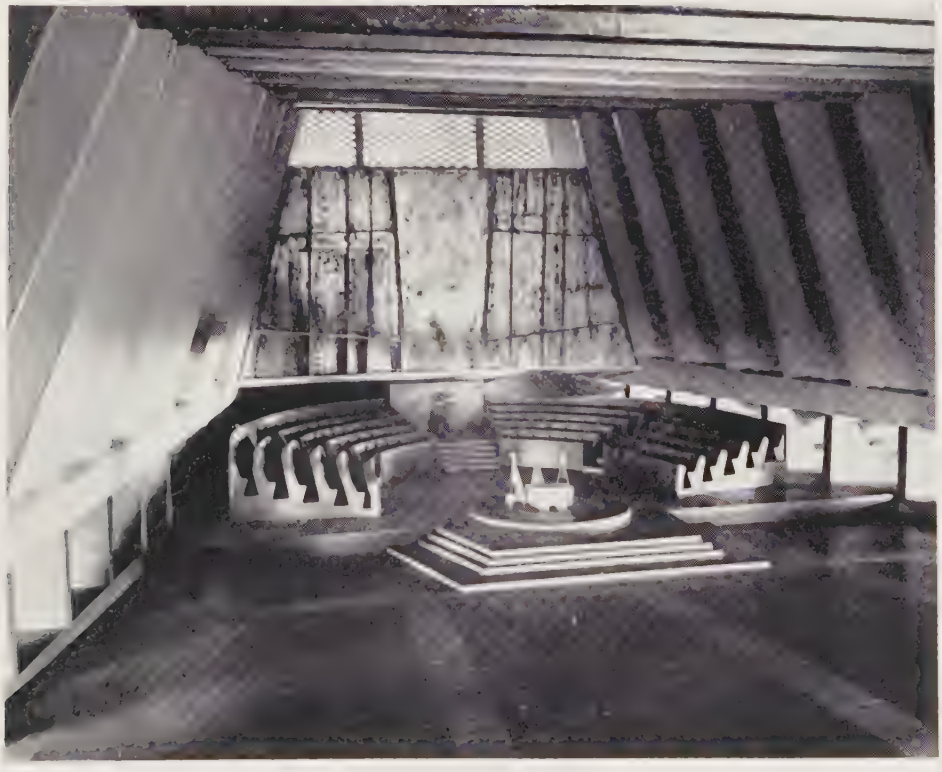
The rearrangement of the old church thus embodied the Benedictine community's commitment to the liturgical revival, but it did so in a way that had serious architectural disadvantages. For example, the rearrangement seats the monks in the transept arms and thus hides them from the congregation; furthermore, the two groups of monks are separated by the width of the church, and the antiphonal responses of the chants are sung under acoustical difficulties. Finally, the revised old church is not large enough for the community's needs. Space for the congregation is limited and precludes participation of the entire student body (together with the monks) in one service.

The architectural embodiment of the monastic community's liturgical ideals,



62. PRESENT CHURCH (CONSECRATED IN 1882): INTERIOR

63. PROPOSED CHURCH (INTERIOR FROM BALCONY)



while foreshadowed in the rearrangement of the old church, emerges in its full significance in the forms of the proposed new church (see illustrations 59, 63). The importance of the high altar is stressed by its central location between the choir stalls and the congregation in the main body of the church. The curved choir stalls, which flank the Abbot's throne behind the altar, are for Fathers and clerics. Choir stalls for the Brothers are on each side of the altar. The trapezoidal plan focuses visual attention on the altar, and at the same time, the central axis of baptismal font, high altar, and Abbot's throne further defines the Benedictine ideal of "the sacramental polarity of monastic life."

Several years before Marcel Breuer was selected to design the new Saint John's Abbey church, Father Cloud had written:

> From the baptistry the newly born Christian gains access to the altar. What is it that we surround with brick and stone and glass when we build a church around an altar? Because Christ is offered upon it, the altar itself is a symbol of Christ; therefore it must be the most prominent part of the church. It is the table of the Eucharistic meal; therefore it must be near the people. Before the altar men will be anointed eternal priests after the order of Melchisedech, sent forth from Christ as apostles to men. Before it, too, will stand young men and women joyfully pledging themselves to lifelong union, and from the altar they will set out to found little churches, *ecclesiolae*, a term by which the early Fathers designated the Christian home. To the altar will be brought the hallowed bodies of those who fall asleep in the Lord, and the Church will sing over them her songs of confident hope: "O death, where is your victory? O death, where is your sting?"

When the new church is constructed, the limitations of the present church will be replaced by a positive, architectural statement of these ideals.

The several views of the model of the new church that the monks have made (see illustrations 59, 61, 67) reveal the church's bold form. Breuer designed a concrete shell which is at once structure, enclosure, and interior finish. This concrete shell is folded and bent into deep corrugations. It unifies monastic choir, high altar, and congregation through the rhythmic repetition of its structural elements. At the entrance the interior space is wider than it is high, but as the church becomes narrower, the proportionally higher ceiling renders the building's axis more vertical. If a cross section is made at the point where the screen separates the choir

from the south wall, the result is a trapezoid that repeats the ground plan of the whole church.

Breuer has made no effort to differentiate the deep serrations of the slanting walls and ceiling to reveal the different areas: congregation, high altar, choir stalls. Since the holy Sacrifice itself, as celebrated at the high altar, represents the central meaning and the essential unity of the church, Breuer has envisioned the envelope of walls and ceilings as a hood (like the monk's habit) which will encase the interior volume and emphasize the joint, corporate worship of monks and congregation.

CHAPTER 19: *On the Manner of Saying the Divine Office*

We believe that the divine presence is everywhere and that "the eyes of the Lord are looking on the good and the evil in every place." But we should believe this especially without any doubt when we are assisting at the Work of God. To that end let us be mindful always of the Prophet's words, "Serve the Lord in fear": and again "Sing praises wisely" and "In the sight of the Angels I will sing praise to You." Let us therefore consider how we ought to conduct ourselves in the sight of the Godhead and of His Angels, and let us take part in the psalmody in such a way that our mind may be in harmony with our voice.

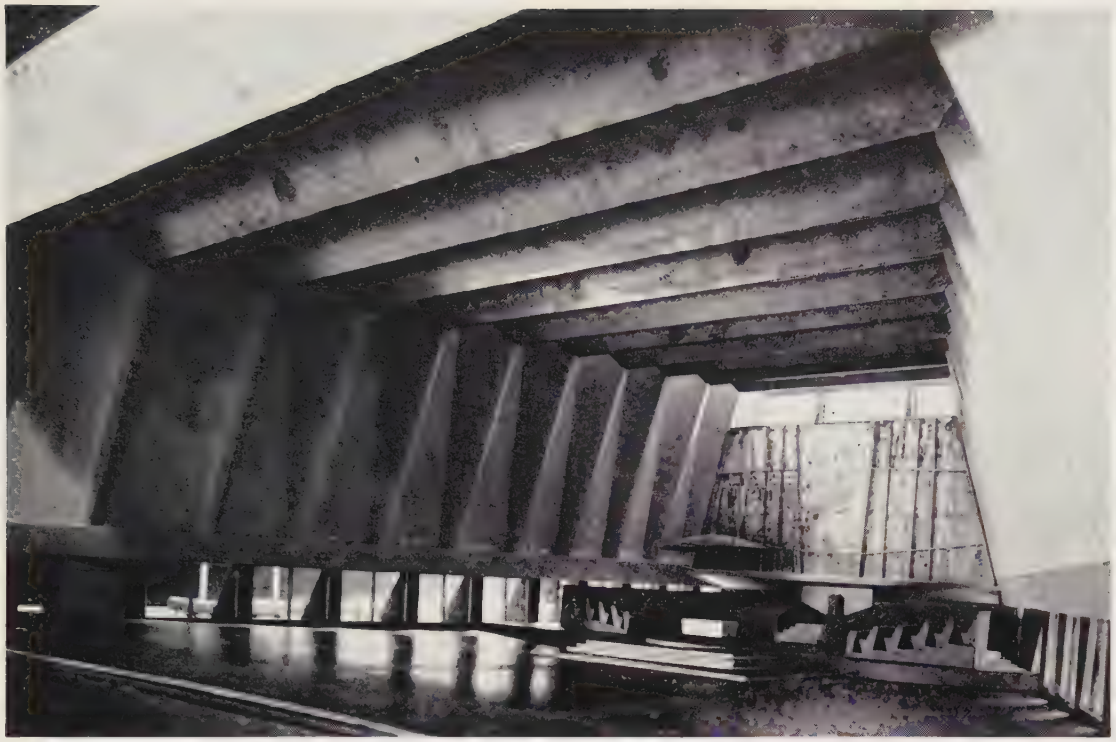
The present church (see illustration 62) splits the Fathers and clerics into three quite separate groups: two in the transept and one in the sanctuary. No special place near the altar is set aside for the participation of the Brothers in Sunday Mass and religious festivals. Only a few monks are visible to the congregation. Visual participation in the sacramental life of the church is further hampered by the large stone piers that separate nave from side aisles. Breuer felt that the new church should be free of interior supports except for the slender reinforced concrete piers that carry the balcony (not shown in the model, but seen in the plan, illustration 24). This interpenetration of interior space and structure (as it is revealed in the Romanesque revival church of Saint John's) has the advantage of a dramatic play of light and shade; and it is a handling of space basic to medieval architecture. But the interior supports that this style requires have a disadvantage: they chop up the space and damage the desired concentration on the high altar. Breuer felt, however, that this same emotional appeal, of the dramatic use of light and shadow that we associate with the medieval church, could be achieved by the

serrated or accordionlike treatment of walls and ceiling, particularly since new techniques in the handling of reinforced concrete make it possible to eliminate interior supports in modern shell construction.

Further, Breuer has dramatized the concrete shell by disconnecting it from the ground. The entire structure is poised on slender granite piers (see illustrations 63, 64). This suspension of the envelope has two aesthetic advantages. First, it gives the structure a hovering character and thus prevents that feeling of oppressive heaviness or downward pressure which so often characterizes modern German churches. Secondly, large windows between the piers allow light to penetrate the church from the two cloisters. The depth of the piers prevents excessive or distracting awareness of the exterior, yet the congregation will be somewhat aware of the cloister gardens.

Natural light will enter the church directly through the side windows; and it will filter through the perforated concrete block wall behind the altar screen. The most dramatic light will be reflected from the bell banner through the north or entrance wall. This wall will give a sense of completing the enclosure of the church and of terminating the interior space. It is thought of as a lacework of gray glass and masonry. Near the side walls the lacework is denser and the masonry lattice predominates. At the center of the north wall the design is opened to admit the reflected light. Artificial illumination is provided by indirect lighting from troughs along the beams of the side walls and from fixtures placed in the canopy, or baldachin, and directed both at the ceiling and at the high altar. Small suspended lights will aid reading in the pews, and small fixtures will be attached to the monks' choir stalls.

The initial emotional appeal of the building as designed will be experienced through the play of light on the modulated shell. The sensitive use of materials, textures, and color will reinforce and heighten this appeal. The waxed red brick floor, which will contain the radiant heating, will resemble the floors in the corridors and recreation rooms of the monastic wing. The concrete walls and ceiling will preserve the textures of the formwork and are to be painted: the side walls white and the ceiling gold. The beauty of the ceiling will be enhanced by reflected light, principally the light from the north and south sides of the church. Textures and the general color scheme are already visible in miniature in the Abbot's private



64. INTERIOR OF PROPOSED CHURCH

65. CONQUES, FRANCE, ELEVENTH AND EARLY TWELFTH CENTURIES



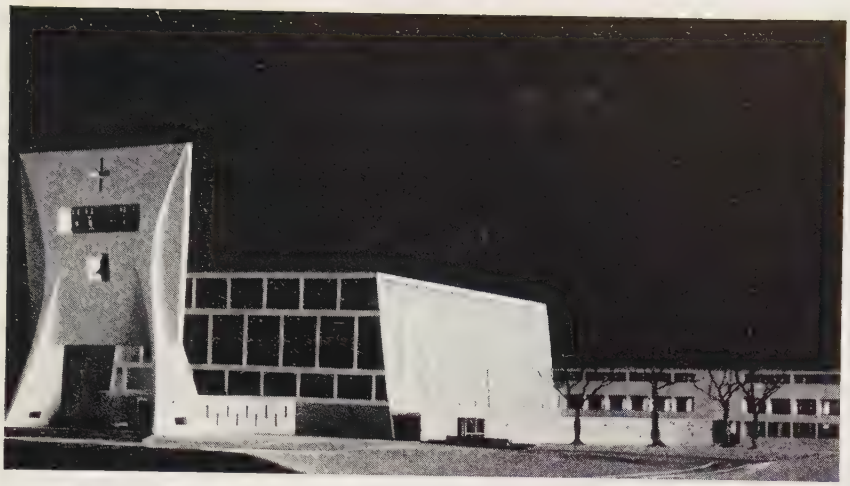
66. VÉZELAY, FRANCE, EARLY TWELFTH CENTURY



chapel (see illustration 44). In contrast to the chapel, however, the glass side walls of the church, spaced by gray, rough granite piers, will heighten the visual interest.

The structural system of concrete bents resembles that used in the assembly room of the UNESCO building in Paris. Folded shell construction in concrete is a relatively new method of spanning large interior spaces; yet its use in a monastic church in Minnesota is sympathetic with the inventive spirit that has dominated Benedictine thinking since the Middle Ages. In Romanesque times, the possibilities of vaulted structures in stone, employing the principle of barrel and groin vault, were dramatically explored by several monasteries (see illustrations 65, 66). These systems of vaults were used extensively by the Romans for enclosing the huge baths and basilicas: whereas the Romans used a type of concrete reinforced with internal brick arches, the Romanesque builders, rethinking the Roman vault, used stone as the basic structural material. Within the limiting potentialities of stone the monks of the Middle Ages created extraordinary structures for religious worship, structures in which the exposed stonework adds a vitality and ruggedness to both interior and exterior. In the twentieth century, with the development of concrete reinforced with steel rods, it is possible to achieve this same vitality and, at the same time, to eliminate the internal supports that hinder vision and chop up the interior spaces of the Romanesque and medieval churches. Thus, the spirit of the great abbey church of the past will be preserved in modern times, and the new church at Saint John's in its structure will interpret the liturgy in an architectural language as immediate and as direct as that of the Middle Ages.

The exterior of the church (see illustrations 59, 61, 67) will echo the interior in shape, surface, and material. The corrugated character of the concrete bents modulate the sides of the church, while the screen wall of glass and masonry on the north side and the perforated block wall on the choir side describe the entry of light. When the church was first designed, the new process of splitting granite waste blocks into bricks was unknown to architects. Since this granite brick was used most successfully in the monastic wing, it may be employed to face and to protect the concrete walls of the church. The size of the blocks would be larger



67. MODEL FROM NORTHWEST



68. PROCESSION FROM NEW MONASTIC WING



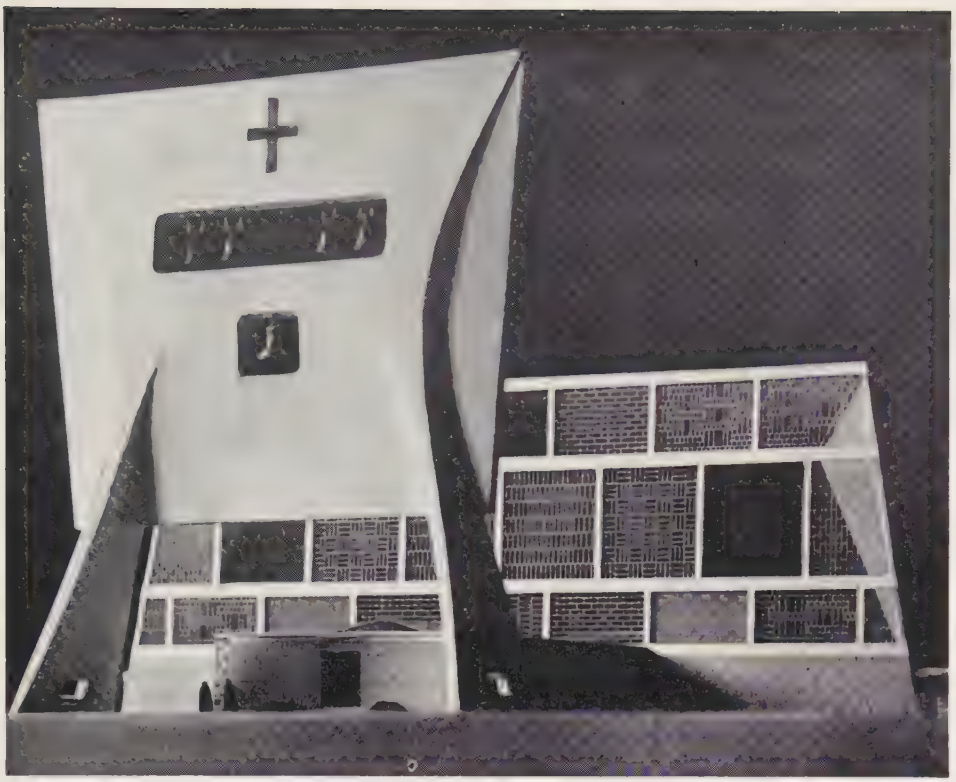
69. MODEL FROM SOUTHEAST

than the two-inch and four-inch bricks used in the monastic wing (see illustration 45), thus respecting in their proportions the larger mass of the church.

The new Abbey church will dominate both the present monastic complex and the proposed one that will emerge as the building program expands. The church's height and central location is emphasized both by the vertical repetition of the concrete bents and by the inclination of the side walls. This narrowing of the mass will differentiate the church from the rectangular monastic wing (see illustration 61), yet the structural divisions of the monastic wing, which demarcate the monks' rooms, will be echoed in the subdivision of the north and south walls of the church. The whole complex with the church as its focal center will eventually emerge as a study in harmony and contrast.

In the majority of modern churches the baptistry is given secondary importance by its location off the choir or at one side of the vestibule. At Saint John's the baptistry is to be the architectural entry into the church. It is to be a single-storied structure, attached to the front of the church (see illustrations 59, 70, 71). The baptismal font will be placed in the center of the atrium and will itself be enclosed. This combination of the baptistry and main entry will result in an architectural emphasis on the simplicity of the liturgy. The baptistry and the altar will form the axis of the church "as these sacraments do the axis of the Mystical Body." This central treatment of the baptistry recalls the Early Christian basilica with its open atrium, translated into a form suitable to a northern climate. In this treatment Breuer has carried out the community's desire to emphasize the liturgical significance of baptism in the design of the church.

The trapezoidal plan of the baptistry is the plan of the church in miniature (see illustration 24). The narrowest dimension of the baptistry trapezoid is on the entrance side, and the smaller building's volume opens toward the church. By contrast, the church reverses the ends of the trapezoid; its walls converge toward high altar and choir. Light penetrates the baptistry via the skylight. Vertical openings in the side walls harmonize with the apertures over the north entrance of the monastic building (see illustrations 68, 71). The trapezoidal plan is further echoed in the shape of the bell banner and it is in terms of this repeated shape that the new church is to proclaim the harmony of its forms.



70. PROPOSED BELL BANNER AND FAÇADE OF CHURCH (1954)



71. DETAIL OF FAÇADE (1954)



72. PARAY-LE-MONIAL, FRANCE (1100)

The bell banner itself, ninety-nine feet high, is to rise over the baptistry as a dramatic announcement of the church's function within the monastic community (see illustrations 67, 70). The design of the bell banner is rooted solidly in Breuer's philosophical and artistic conception of architectural forms in their relation to churches. As the design of the church's interior makes clear, Breuer is sensitive to the forms of medieval architecture, particularly to those of the Romanesque. Breuer also feels that architecture should reflect and proclaim not the past, but the present, the time in which it is conceived and constructed. Historically, church towers were first erected as bastions of defense. Bells were added later to serve as signals or to establish the schedule of daily events. In the course of the Middle Ages, the paired towers, which dominate monasteries and cathedral towns, became the characteristic silhouette of religious architecture. This use of towers continued down through the nineteenth century (see Saint John's, illustration 6) and into the twentieth century. According to Breuer, the real architectural symbol of our age might be, more appropriately, the cantilevered concrete slab. The twentieth-century church no longer needs towers for defense; nor are twentieth-century architects limited to stone block construction. The architect can set the slab on end, place the bells in two perforations and open the cross to the sky.

It is a dramatic and unusual approach and yet the idea of designing a wall with perforations for bells dates back to Breuer's travels in 1931 and 1932. On several Greek islands Breuer saw and photographed small provincial churches which had thin façades with openings containing bells. When a new bell is donated to one of these churches, the wall is extended and a new hole constructed for the gift. Breuer was impressed by the forceful assymetry and by the possibilities of bold silhouette and of the dramatic contrast of solids and voids. After he had designed the Saint John's bell banner, Hamilton Smith showed him photographs of Spanish colonial mission churches with this same treatment of bells exposed to the sky. Thus the bell banner is a new-old concept and in this way complements the new-old forms of the church beneath its silhouette.

As designed, the bell banner is to prepare the worshiper for the church. Its trapezoidal elevation is repeated in the plan of the baptistry and in the façade of the church as well as in the floor plan of the church; at the same time the increase in the width of the banner plays against the inward inclination of the side walls of

the church. The weight of the structure upheld by its supports suggests, in its poised nature, the church with its ceiling shell supported by slender granite piers. To animate the surface of the bell banner, the supports curve upward and increase the soaring verticality by a counterpoint of geometric and curvilinear shapes.

Another important function of the banner, a function that further justifies its design, is its use as a large lighting panel. (The southern face of the banner will reflect sunlight into the church. Since the entrance of the church faces north, no direct sunlight could possibly penetrate its interior.) As one huge reflecting panel, the banner will achieve dramatic lighting effects as it pours light through the colored glass north wall of the church. The banner stands not only as a monumental shape in the open square in front of the church; it also stands as a functional solution to the problems presented by the church's northward orientation.

In contrast to the church in which prayer and praise of God predominate, the chapter house (see illustrations 59, 61) symbolizes prayerful action. The Abbot alone can convene a chapter meeting, and it is here that all business relative and important to the monastic family is transacted with complete freedom of discussion. Such matters as the election of an abbot, expenditures over and above the ordinary demands of maintenance, and the foundation of new monastic dependencies are voted on by all members of the chapter. In the chapter house the living stream of monasticism with its divergent channels of influence finds its source.

The chapter house must be large enough to hold not only the resident Fathers and clerics of Saint John's but also the monks of the dependent priories, parishes, and missions who are called to Saint John's to attend special chapter meetings. Breuer's early designs had suggested a large room in the monastic building for the chapter house. Further questions on the part of both architect and the community resulted in the design of a separate building, which is to open off the east cloister walk. This separation of church and chapter house reflects in architectural terms the active and contemplative aspects of Benedictine monasticism—aspects that are distinct (as are the buildings) but integrally related (as the two buildings are designed to mirror each other in a harmonious relation of forms).

The chapter house, like the church and the baptistry, is a trapezoid in plan with banks of seats facing the abbot's throne (see illustrations 59, 61, 69, 73). In con-

trast to the church in which Abbot, Fathers, Brothers, and congregation focus on the central high altar, the chapter house reveals the role of the Abbot as father of the monastic community. The building opens away from its entrance in an obtuse angle and thus describes a space for meetings—for discussion, planning, and decision. Nor is the use of this building's interior space limited and formal. The chapter house can be used for choir practice, and for those informal meetings in which the Abbot addresses the clerics, the Fathers, and the Brothers.

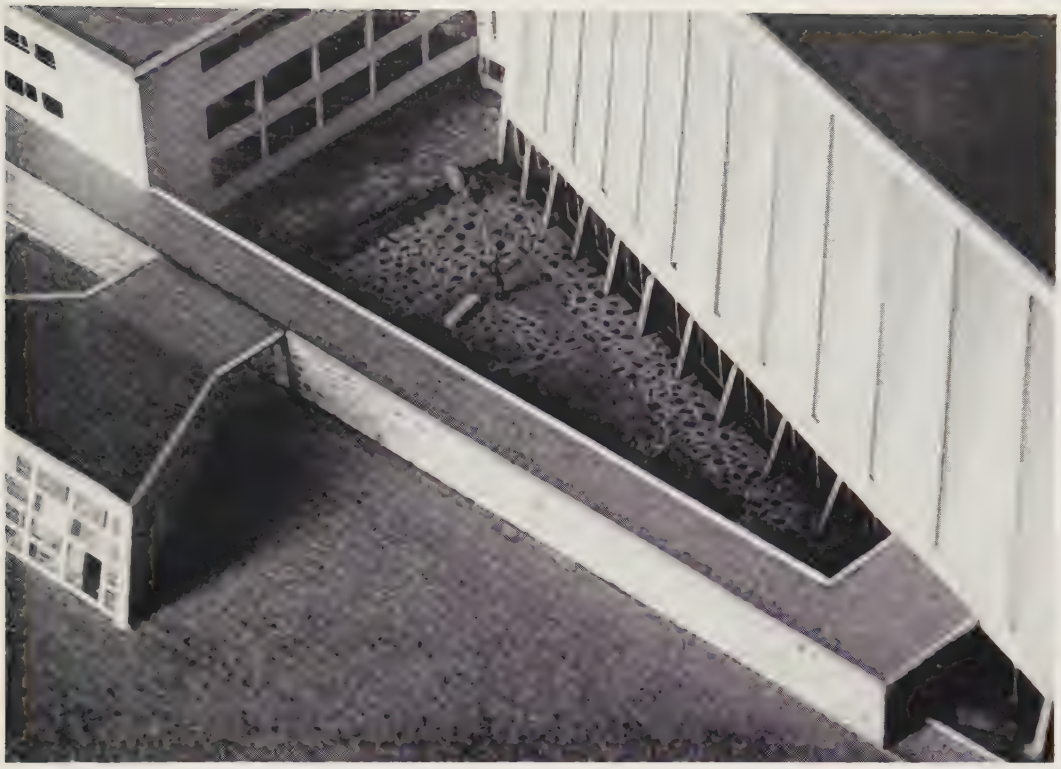
The rectangular subdivisions of the east window wall contain opaque panels that repeat elements of the other buildings and relate the forms of the chapter house to the monastic wing and to the silhouettes of church and bell banner (see illustration 61). At one stage in the design, a curved roof (see illustration 12) was proposed for the chapter house, but the present roof form is more harmoniously related to the rest of the monastic complex. The concrete mullions that contain the small colored panels articulate the smaller scale of this building, while the chapter house in its volume takes its place in the total composition of monastic wing, church, and bell banner.

CHAPTER 3: *On Calling the Brethren for Council*

Whenever any important business has to be done in the monastery, let the Abbot call together the whole community and state the matter to be acted upon... the reason we have said that all should be called for counsel is that the Lord often reveals to the younger what is best.

The trapezoidal ground plan of the new church will be framed into a square by the split cloisters (see illustrations 24, 73). The medieval cloister comprised four sides of an open square (see plan of Fontenay, 25, and illustration 74) and served a dual role. It brought nature into the monastic complex in the form of an enclosed herb garden, and it served as the major corridor for circulation between church, chapter house, monks' recreation room, warm room, and refectory. At Saint John's the two open triangular courts will occupy the areas between the church and the cloistered walks.

Each of these courts is to be on two levels—sunken in the shadow of the new monastic wing and at ground level along the sides of the church (see illustrations 24, 73). Access from the glass-walled cloisters into the two courts is to be at the



73. PROPOSED CLOISTER OF SAINT JOHN'S

74. CLOISTER OF FONTENAY, FRANCE, TWELFTH CENTURY



junction of the ground and sunken levels. Since the cloisters will be glass on the court sides and since the church will have large glass windows between the granite piers of its side walls, glass will face glass, and the transparency of the medieval cloister will be preserved even in the extremes of the Minnesota climate. The cloisters will be turned in and focused upon the flagged and planted courts and upon the church itself by the continuous exterior wall of granite brick (see illustration 73).

The new cloisters will preserve and reinterpret the tradition of the open medieval cloister. The connecting corridors between the church and attendant buildings will no longer be internal and virtually hidden, as in the old quadrangle at Saint John's, but will be stated positively in horizontal forms. These forms will frame the church in a kind of enclosure; at the same time they will describe in architectural terms the unities of church and monastic complex.

One of the strongest aspects of the Benedictine heritage is reflected in a consistant emphasis on creative and inventive thought. Saint Benedict himself articulated a new order of monastic life in writing the Rule (A.D. 530) and in inaugurating his Abbey at Monte Cassino. Since their origin in the sixth century the Benedictines have made major contributions to organized monasticism and to architectural forms sympathetic to monastic life. One climax of Benedictine architectural achievement occurred in the twelfth century in the reconstruction of the Royal Abbey of Saint-Denis in France. Abbot Suger employed imaginative architects, whose names are unknown; they designed and built a choir and a western entrance with paired towers and monumental portals. In its new technology Saint-Denis reflected fundamental changes in medieval thought. From this fusion of new forms and new content emerged the spirit and structure of medieval Gothic.

Abbot Suger's architects worked in a vocabulary of stone and ribbed vaulting. The twentieth-century architect has at his command a vocabulary of materials and techniques infinitely more varied and complex. The new church at Saint John's with its bell banner, its split cloister, and its adjoining chapter house is a creative restatement of monastic ideals in the language of twentieth-century architecture. Breuer's design for this complex is an artistic achievement which, in its scope and its detail, challenges comparison.

VI

Plan for the Future

IN 1951 THE TIME FOR AN ARCHITECTURAL REASSESSMENT HAD COME AT SAINT John's. There were immediate and urgent problems that might have been solved by redesign and small-scale reconstruction of extant buildings. But larger problems were imminent: many buildings other than the monastic quarters and the church were soon to become obsolete. Some difficulties might be solved by costly patchwork, but other and more complex situations were certain to arise. The monks attempted to face squarely both the immediate and long-range architectural problems; the original report of the building committee in 1952 envisioned:

> . . . an over-all plan which would seek to discover the needs that might arise over a long period of time and which would seek to meet these

needs in a manner that would be most suitable and would eliminate some, if not all, of the changes that have been inevitable in the past.

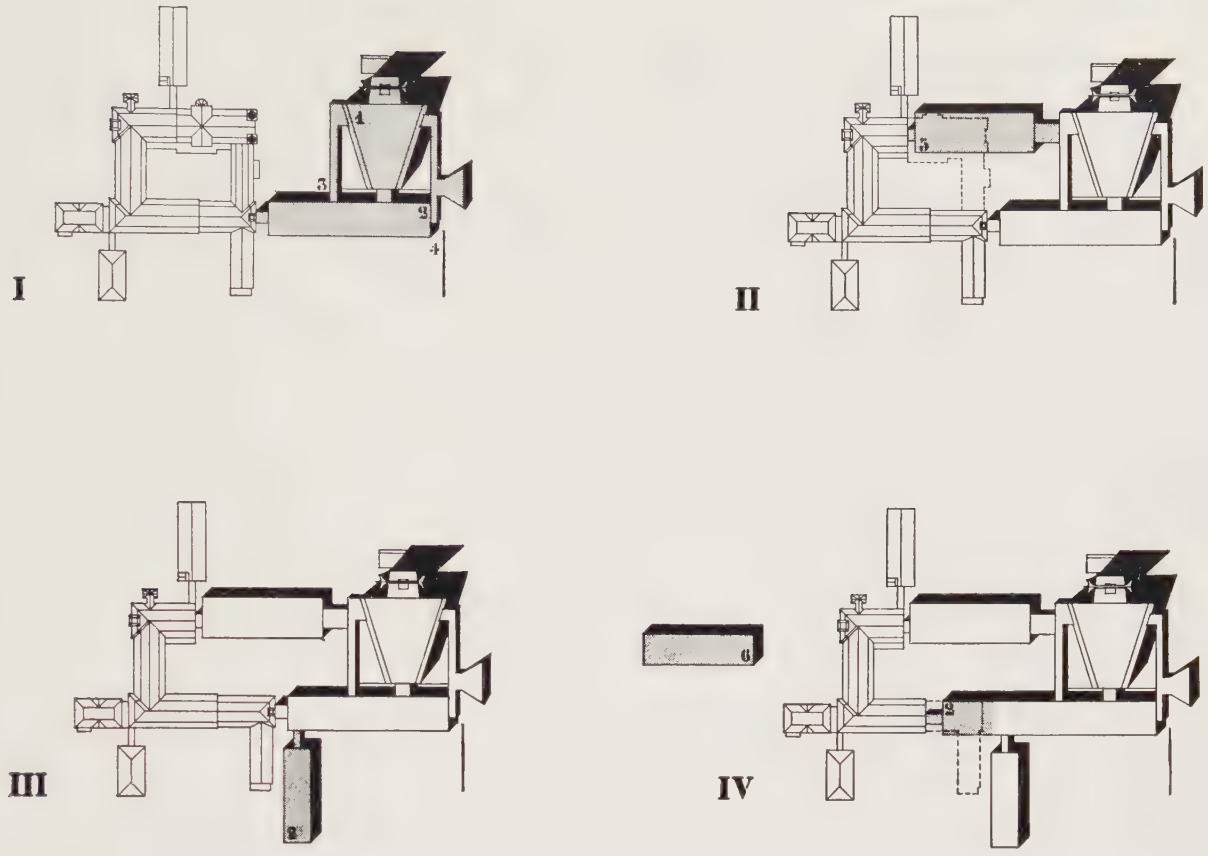
The monks had realized that the present layout of the plant was the result of a planless growth, a kind of architectural accretion. They felt that the next century of the monastery's life should not witness the same wandering among architectural pitfalls but should be disciplined by an intelligent master plan.

The twelve architects who received the Abbot's original letter had found this opportunity to plan for one hundred years of growth particularly appealing. But the realization of such a plan for a community already housed and functioning is not as simple as the process of analysis and design. The new physical plant, scheduled to emerge in the course of a century, would have to be designed for gradual construction; and the master plan would have to insure that at no point in the construction would the monastery's life and function be subject to interruption.

Breuer's master plan for the gradual reconstruction of the Abbey proposes a building program that is to be accomplished in six stages. The first stage (see illustration 75, #1, shaded portion) includes the construction of the monastic wing, church, cloisters, and chapter house. The monastery is at present in the midst of this first stage. The monastic wing has been completed; the designs for the church and its attendant buildings are in their final phase. The site for this first group of new buildings is new land to the east of the old quadrangle. Thus, the first stage will be accomplished without demolition.

The second stage of the building program (see illustration 75, #2, shaded portion) will involve both demolition and construction. The old church and the east wing of the old quadrangle will be razed; and a new building will take their place. The monastery's administrative offices, which are now scattered, will be concentrated on the ground floor of this new, central building. The upper floors will house the Abbey's rapidly expanding library.

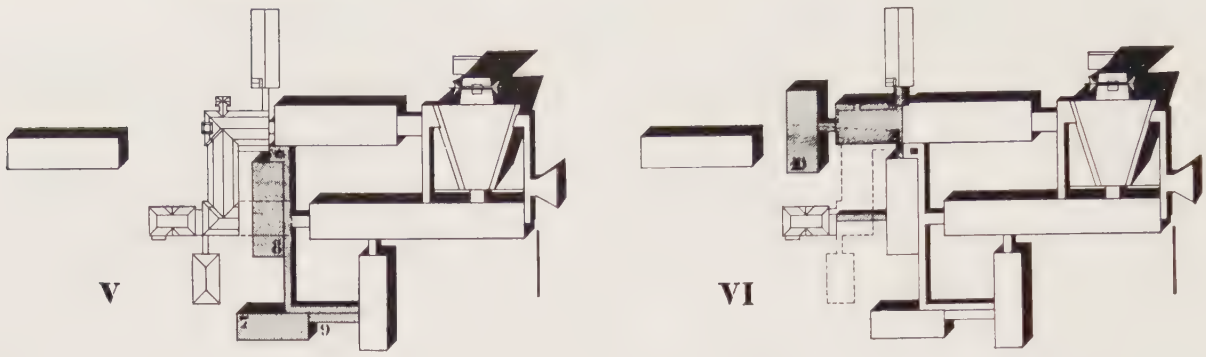
Another monastic wing will comprise the third stage of the construction program (see illustration 75, #3). This building will extend south from the west corner of the new wing and will provide living quarters for most of the Fathers and Brothers who still occupy rooms in the old buildings. This structure will rise in the shadow of the old south wing and will eventually be freed and completed



75. FIRST FOUR STAGES OF BUILDING THE NEW SAINT JOHN'S

in the fourth stage of the program when the south wing and southeast corner of the old quadrangle are demolished. This process of alternate construction and demolition, a process of shadow-building, will transform the Abbey without disrupting the function or living arrangements of the community. The fourth stage (see illustration 75, #4) also includes designs for a new high-school dormitory, which will house two hundred and twenty students and which will be erected on new ground to the west of the present quadrangle. When the fourth stage is complete, adequate housing for the monastic community will have been accomplished.

New classrooms, a minor seminary, and a greenhouse (numbered 8, 7, 9, see illustration 75, #5) will be constructed in the fifth stage. The remaining section



75. (CONTINUED) FIFTH AND SIXTH STAGES OF BUILDING

of the quadrangle's south side will be torn down. The classroom building will rise in the shadow of the west wing, the wing in which most of the University's classes are presently held. The sixth and final step in the reconstruction of the central buildings (see illustration 75, #6) will include an extension of the new library and the construction of a science hall. A connecting passageway will tie the recently refurbished art building to the new classroom building. The demolition of the remaining west section of the old quadrangle will mark the completion of the whole educational core at Saint John's.

The six stages of this building sequence follow the priority list of requirements as established by the building committee in cooperation with the entire monastic community. The general layout, an open-ended quadrangle with connecting enclosed passageways, prevents the constriction of space that is so apparent in the old quadrangle (see illustration 60). Further, many of the masses overlap each other with the result that their extension will preserve the all-over plan and, at the same time, allow for expansion whenever and wherever needed. The science building (#10), the classroom block, and the south monastic wing, all could be enlarged without impairing the design qualities of the whole central complex.

This final solution is the refinement of an ink drawing which Breuer added to one of the earliest plan studies in July, 1953. Benedictine monasticism demands seclusion for the monks during certain periods of the day and active participation in educational and other processes during the balance of the day. Thus two seemingly opposed criteria provided the key to the whole architectural solution. The placement of the buildings and the connecting links that tie the separate masses

together comprise a cohesive and functional design of great artistic quality. At present one-half of stage one is completed; and the Abbey hopes to break ground for the new church and its adjoining structures in the near future.

The reasoning behind the placement of these major, connected buildings can be understood only if the comprehensive plan of the entire plant is analyzed (see illustrations 76, 77).

The plan and the model for the future reveal the school and library as the meeting ground between monastery and college. The monastic buildings, which lie to the southeast, are joined by enclosed passageways to the classroom wing and to the library and administration building via the west cloister walk. This concentration of monastery, minor seminary (for predivinity students), and the seminary around the shores of Lake Sagatagan separates the monks and the divinity students from the undergraduates who attend the college and preparatory school. Since the monks and all students with the exception of those enrolled in the seminary eat in a building in the central school core, this attached yet isolated placement fulfills the needs of both the academic and the monastic life. The monks' refectory or dining hall will be located on the ground floor of the western end of the stage three monastic wing. It will be served from the main kitchen on the ground floor of the classroom wing, which will, in turn, feed all the students.

Breuer has concentrated the maintenance buildings—farm structures, heating plant, and liturgical press building—in the area west of the central complex (see illustration 76). Many of the buildings, such as power house, butcher shop, smokehouse, honey house, and pump house—all simple brick structures—will be preserved and enlarged wherever necessary. The farm buildings, which are presently spread around the periphery of the plant, will be concentrated in this area. The present firehouse is inadequate and will have to be replaced. The liturgical press and print shop is housed in a converted army barracks. It may be necessary to give the new press building a top priority, but the existence of the over-all plan will make its location consonant with the orderly growth of the entire plant.

In between the shop center and the school center is located the high school,

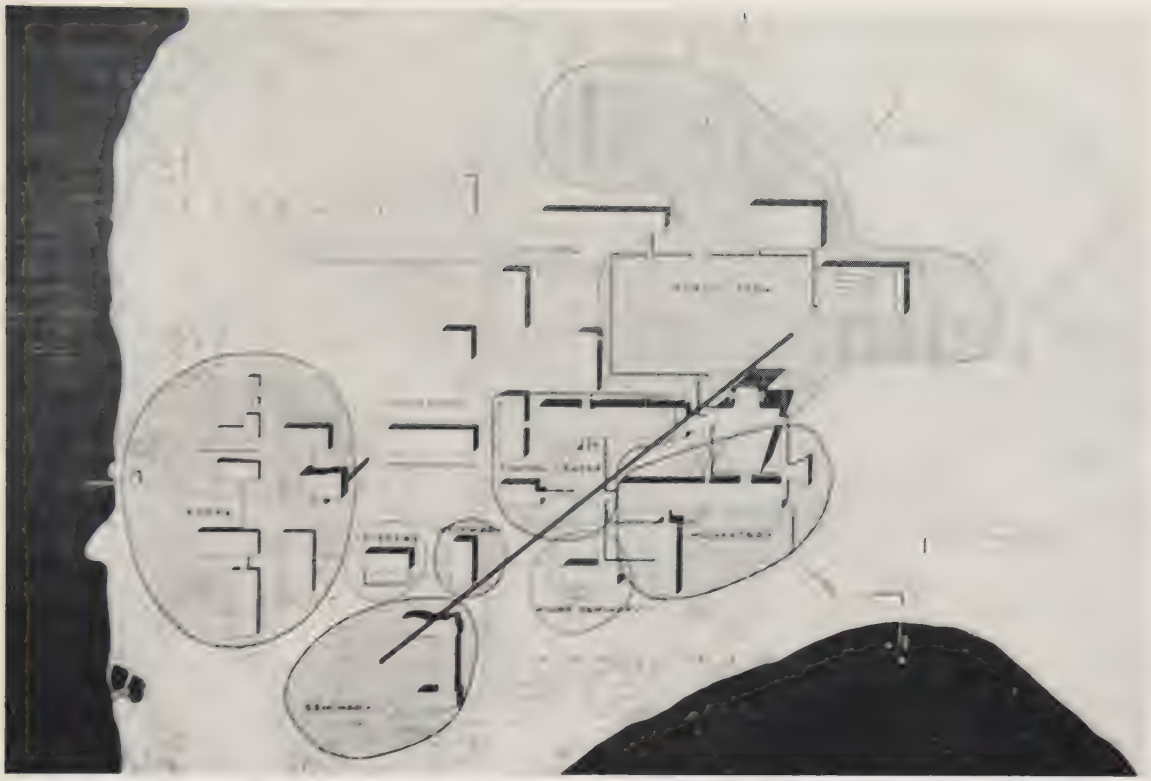
dormitory, housing for the Sisters, and the infirmary (see illustration 76). The Sisters are in charge of the infirmary and of the central kitchen. For many years Franciscan Sisters have lived, worshiped, and worked at Saint John's. Last year the Franciscan Sisters were replaced by Benedictine Sisters from Mexico. Dormitories for the college students form a group on the north side of the library and administration building. Since St. Benet's Hall and St. Mary's Hall are recent, well-constructed dormitories, Breuer organized the plan to integrate them into the total design.

On the north and northeast side of the open square in front of the church Breuer has placed the auditorium-theater and the new gym with the present athletic fields expanded. These two buildings and the football field need large parking lots, which will be located beside the auditorium and between St. Mary's Hall and the stadium. Breuer's design connects these buildings by covered passageways, which surround the large square green in front of the church.

The plan for this public area will necessitate rerouting the present road from the east and converting the secondary route from the north into the main entrance to Saint John's. When the church complex is complete, the approach from the north will be dramatized by the dominant silhouette of the ninety-nine foot bell banner, which will be visible from the main highway, a mile from the Abbey. As one proceeds toward the Abbey, it will disappear only to emerge again as the road climbs gently up to the open square. The diagonal axis of the road will further focus attention on the large mass of the church.

The contrasting outdoor spaces—some open, some intimate—characterize the entire plan. The overlapping and interlocking of buildings result in a lively and stimulating design with repeated forms freely and rhythmically spaced. In his book, *Sun and Shadow,* Breuer clearly states the architectural philosophy that underlies this plan:

> These simple forms are enough for us because—accustomed as we are to thinking in terms of motion—we are always aware of spaces beyond the ones we happen to be in, and we are content with the variety and richness inherent in movement as such.
>
> The nature of the space within our buildings or between them is indeed the reality of architecture. It is something difficult to define. Its laws, logic and aesthetic are fluent. To be entirely satisfactory it must be



76. COMPREHENSIVE PLAN OF ABBEY AND UNIVERSITY

77. MODEL OF COMPREHENSIVE PLAN



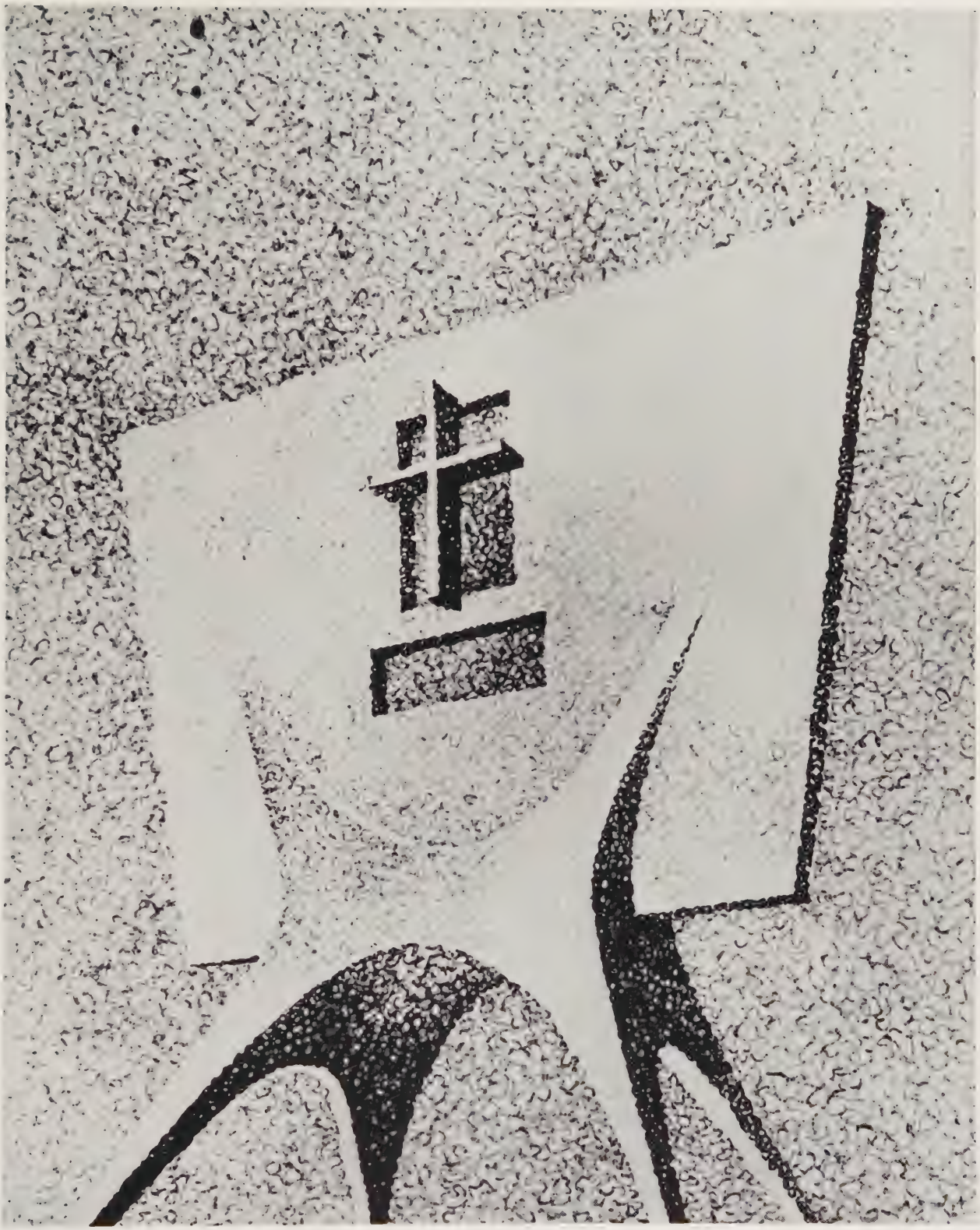
a unity of the practical and the aesthetic. The practical, as we have seen, suggests the material of the space elements: the logic determines succession and size of spaces.

The exact rhythm of space-successions is the art of architecture. It cannot be defined by hard and fast rules—though there are some simple and successful formulas: emerging from a narrow, darker, low-ceilinged space into a light, high, large space is an exciting experience. Changes in color, in acoustics, in temperature can be stimulating, practical requirements leading to space-sequences that are more than merely functional.

The eye is the only receiving instrument in the experience of painting. But we have seen that the experience of architecture is received by the whole body, by all our senses—including our sense of logic. It is not only an eye aesthetic, it is a physical aesthetic.

The monks of Saint John's now have an imaginative, long-range plan for their second hundred years. As construction proceeds, each phase will be restudied by both architect and patron. Since any design is the product of creative thinking at a given moment in time, many changes will undoubtedly be made in the future. In the fall of 1956 Breuer redesigned the bell banner (see illustration 78). If the new design is compared with an experimental and rejected drawing of the summer of 1953 (see illustration 11) or with the design presented to the monks in 1954 (see illustration 70), it is evident that Breuer is satisfied with the trapezoidal shape of the banner but is rethinking the nature of the supports and the shapes and placement of the apertures. The banner in this new design is upheld by four separate legs, which involve a play of arch and vault under the banner and which melt into the banner itself. The greater depth of the supports provides a more definite integration of bell banner with church and cloisters. The lower, horizontal opening for the bells repeats the shapes of the baptistry and of the lower range of glass panels in the church, while the upper perforation with its projecting cross echoes the second tier of glass panels.

The new design for the bell banner is one more step in the process of suggestion and refinement that has characterized the relation between architect and patron in the building program. The bell banner as it appears in the model and as it emerges in the sensitive articulation of the new design will be both the symbolic and the artistic focal point of the new Saint John's Abbey.



78. BREUER'S RECENT DESIGN OF BELLBANNER (1956)

VIII

Refinements on a Major Theme

WHILE THIS BOOK WAS BEING WRITTEN, THE MONKS OF SAINT JOHN'S DECIDED TO proceed with the next phase of their building plan: the construction of the church complex. The same cooperative spirit between architect and client that culminated in the construction of the monastic wing and in the hundred-year building plan has manifested itself again in the restudy of the church. The basic over-all design of the church complex (church, bell banner, cloisters, chapter house and baptistry) is retained but a closer consideration of the Abbey's requirements, which include a larger church, has necessitated a re-evaluation of the plans.

Early in October, 1956, the Abbot, after consultation with the Senior Council, appointed a new building committee, the church committee. To insure represen-

tation for the entire monastic community the Abbot expanded the committee membership to fifteen. The Abbot, upon the recommendation of the Senior Council, retained the chairmanship and appointed his subprior, Father John Eidenschink, as vice-chairman. At its first meeting early in October the committee decided to reconsider the needs of the church and restudy the basic plans that had been presented to the monastic community in January, 1954. The committee felt that the Abbot should write Marcel Breuer and ascertain whether the architect had conceived any significant changes in the church complex.

On October 16, Breuer answered the Abbot's inquiry in a letter that suggested several refinements in the church design. The revised plan for the bell banner (see illustration 80 and related text, p. 96) was included with this letter. Breuer suggested that he would like to enlarge the atrium-baptistry and complement its form with a larger piazza in front of the church. Further, Breuer wrote, he would like to open the church roof into a lantern or skylight over the altar. Several of the committee members had discussed the possibility of some vertical emphasis over the altar, and Breuer's new suggestions were received with enthusiasm.

Subsequent committee meetings further clarified the Abbey's attitude toward the church building program. On the 23rd of November the committee was ready to make its recommendations to the monastic community and published the following unanimous resolution:

> Since the committee is convinced that the existing plan for our abbey church satisfies the liturgical and theological requirements, the committee accepts in general outline the plan previously submitted by Mr. Breuer, with the modifications suggested in his letter of October 16, 1956, and with possible modifications yet to be suggested and agreed upon by the committee.

The committee sent questionnaires to all the members of the Saint John's chapter in an attempt to elicit recommendations and specific suggestions. The replies demonstrated that a considerable majority of the monks approved the committee's resolution.

The committee discussed the suggestions it had received from the monks. At meetings held at the Abbey in December, the following changes in program were submitted to Marcel Breuer and Hamilton Smith: (1) To increase the seating

capacity of the church proper to approximately 1700 worshippers as opposed to 1250 in the original plans; (2) To establish a vertical axis over the sanctuary (carrying out Breuer's original idea); (3) To change the design of the chapter house to improve the lecturer-audience relationship; (4) To replace communion rails with communion tables; (5) To provide additional confessionals; (6) To include a pastor's office; (7) To rearrange the Brothers' choir and to provide additional private chapels in the Lower church. The architects made several further proposals: (8) To integrate more closely church, baptistry, and bell banner; (9) To give greater prominence to the main entrance; (10) To provide access to the Lower church directly from the atrium-baptistry.

Breuer and his associates studied these jointly formulated revisions of the Abbey's church program and undertook the problems of refinement and redesign. This process continued until March, 1957, and culminated in a new set of plans (see illustrations 79 through 91). Hamilton Smith discussed these plans with the church committee in a series of meetings at Saint John's; and the monks accepted the design that was developed from the revised program.

The site plan (see illustration 79) and the view of the new model of the church (see illustration 80) involve a restatement of the original design for the church complex that was submitted to the Abbey in January, 1954. But the new plans reveal subtle refinements of form and material and extensive redesign in apertures and lighting. The straight sides of the original trapezoid have been modified into a subtle curve, while the lantern, projecting above the roof line, defines the location of the high altar from the exterior. The central location of the bell banner has been further dramatized by a closer integration with the atrium-baptistry, an integration dramatized by the repeated trapezoidal ground plans of terrace, baptistry, and church. The most radical evidence of complete redesign is to be seen in the shape of the chapter house mass on the east side of the cloister walk. The façade of the church (north side) is now animated by a honeycomb pattern of precast concrete hexagons (compare illustration 70), while the side elevations are covered with granite blocks.

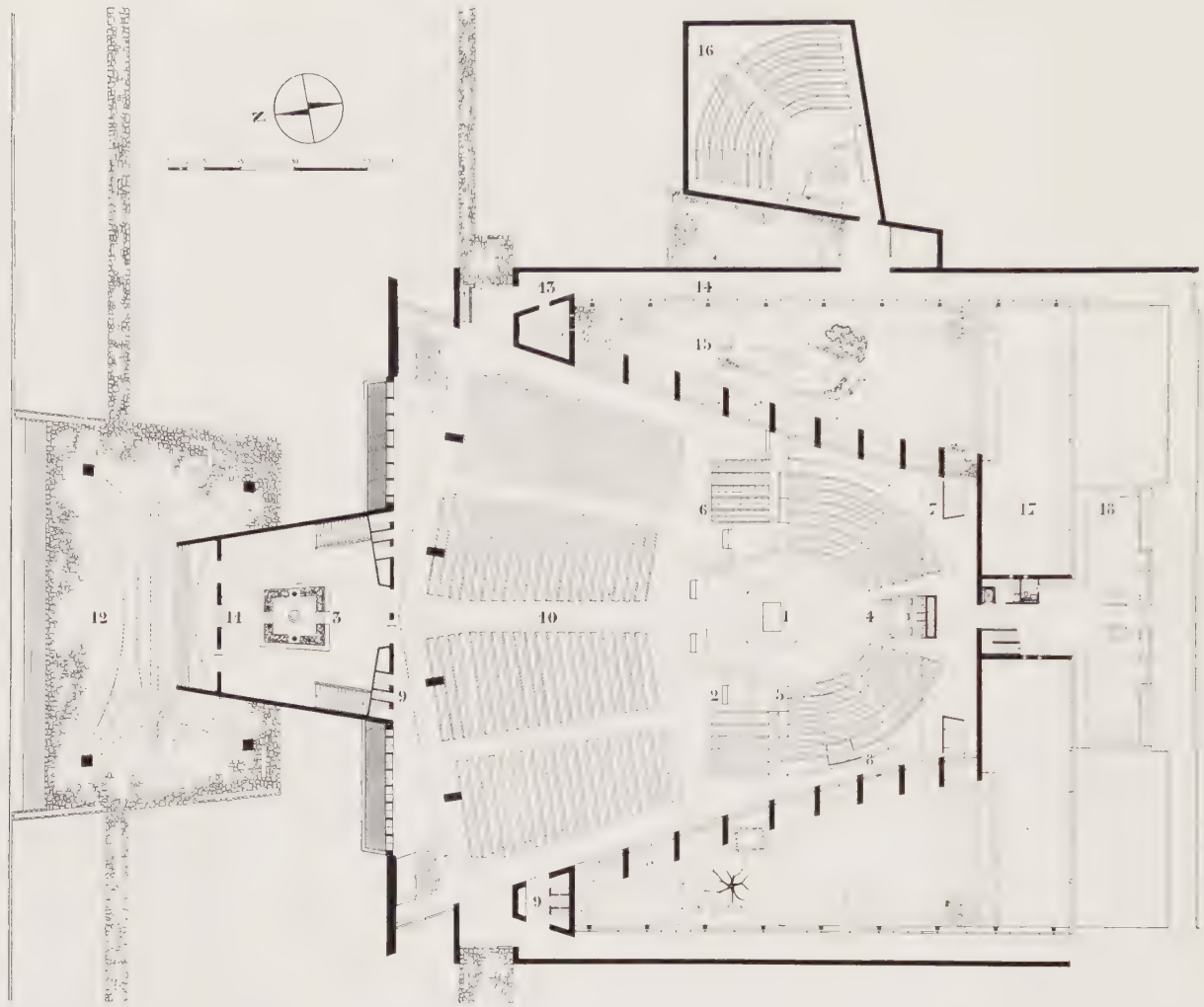
The new plan of the main floor (see illustration 81 and compare illustration 24) exhibits in more detail the imaginative changes that have transpired. The bell



79. NEW SITE PLAN

80. NEW MODEL FROM THE NORTHEAST





81. PLAN OF MAIN CHURCH (1957)

1. Altar
2. Communion tables
3. Baptistry
4. Abbot's throne
5. Monastic choir
6. Brothers' choir
7. Private altars or shrine
8. Organ console
9. Confessionals
10. Nave
11. Processional door
12. Forecourt
13. Pastor's office
14. Cloister walk
15. Cloister garden
16. Chapter house
17. Sunken garden
18. Sacristies

banner rises from a flagged terrace and covers the portico of the atrium-baptistry. From the deep portico access is given through three doors to the baptistry area. When Breuer requested two entrances instead of the single doorway on the original plan, the monks suggested three portals, with the central one reserved for ceremonial occasions. This increase in the number of portals allows freer circulation around the baptistry. Instead of glazing the sunken area around the baptismal font, Breuer designed a four-foot bushhammered concrete screen with a bench around the outside. This screen defines the baptismal area in textural terms, which are echoed in the concrete piers of the church.

In the church proper (see illustration 81) the architects have increased the size of the balcony by shaping its plan to echo the arrangement of seats below and by transferring the stairs to the extreme corners of the church. The entire balcony is now radically cantilevered from four large concrete piers instead of the modified cantilever from eight slender supports. The elimination of balcony supports from the pew area insures better visibility in the main church, and the obtuse angle of the balcony provides an interesting repetition of the seating pattern on the main floor. The junction of cloister walks and the north or entrance side of the church is further clarified by the trapezoidal shapes of the rooms, which contain additional confessionals and the pastor's office, and these shapes in turn repeat the major shapes of the church in reverse axis.

The sanctuary is reorganized to facilitate circulation from the monastic wing and the sacristies and to integrate more closely the Brothers' choir with the main choir. Choir stalls are now arranged so that more of the Fathers face each other across the choir. Communion tables replace a continuous communion rail, and their arrangement implies their sacramental relation to the altar. The central position of the altar, embraced as it is on three sides by the monastic choir, is further dramatized by the lantern, which diffuses light in the sanctuary area and which further emphasizes the primary importance of the altar in Catholic worship.

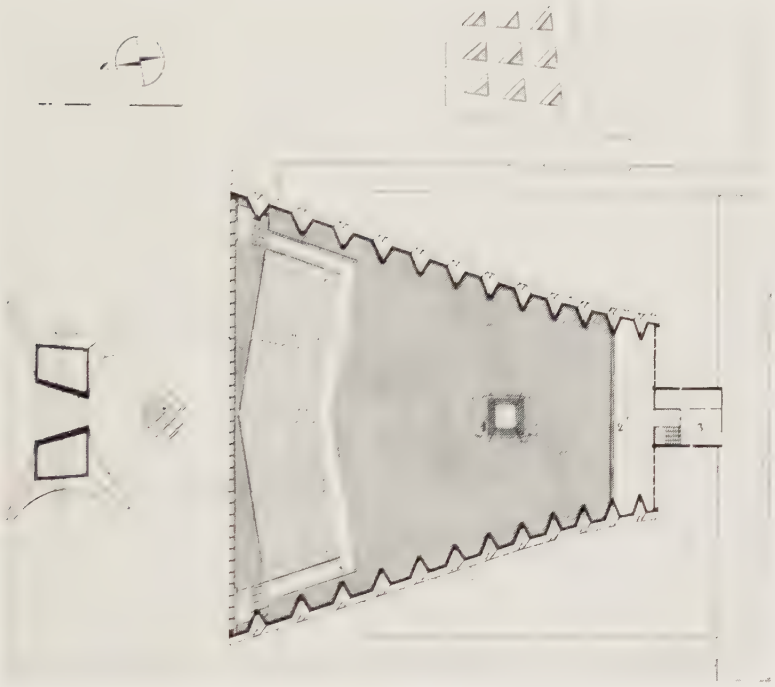
The function of the chapter house (see illustration 81) was re-evaluated by the monks and the architect. Since this room will be used for chapter meetings, for the Abbot's conferences with clerics, Brothers, and Fathers, and for choir practice, its organization must take into account its multiple role in the monastic life. The church committee requested a restudy of the chapter house, and Breuer's office

submitted six schematic plans showing different balances between the chapter function and the lecture function. These plans corrected the centrifugal effect of the old chapter house. The monks selected the present plan, a square slightly elongated, and suggested the curvature of the seating arrangement. Ramps on each side of the speaker's platform descend to the main floor. Concentration on the acute angle where the lecturer stands is achieved without the distraction of glass areas apparent in the original design (see illustration 24). Both architect and client feel that the new chapter house is a more successful articulation of the building's important function in the community.

The plan of the church at the balcony level (see illustration 82 and compare illustration 26) and the plan of the Lower church (see illustration 83 and compare illustration 27) show the improvement of circulation between the three floors. Parishioners attending services in the Lower church will gain entrance through the baptistry, and the theological significance of the church's axis (Baptism to Eucharist) will be uniformly maintained. The area for private worship behind the choir screen is retained. The baptismal font is lighted by twelve glazed apertures between the ribs of the concrete ceiling, while the chapter house is illuminated by nine dispersed triangular openings in the roof (see illustration 82).

In the Lower church (see illustration 83), Breuer has carried out the monks' request and reorganized the Brothers' choir so that the two sections of choir stalls face each other and focus on the altar. This change in design plus the enlargement of the size of the church itself has made it possible to include additional private chapels. The original plan (see illustration 27) contained no provision for natural lighting in the Lower church. By including long light wells along the north or entrance wall and by piercing small windows through the south wall, which give into the sunken cloister, daylight is allowed to penetrate two sides of the Lower church. These changes will prevent the Lower church from having a dark, cryptlike atmosphere.

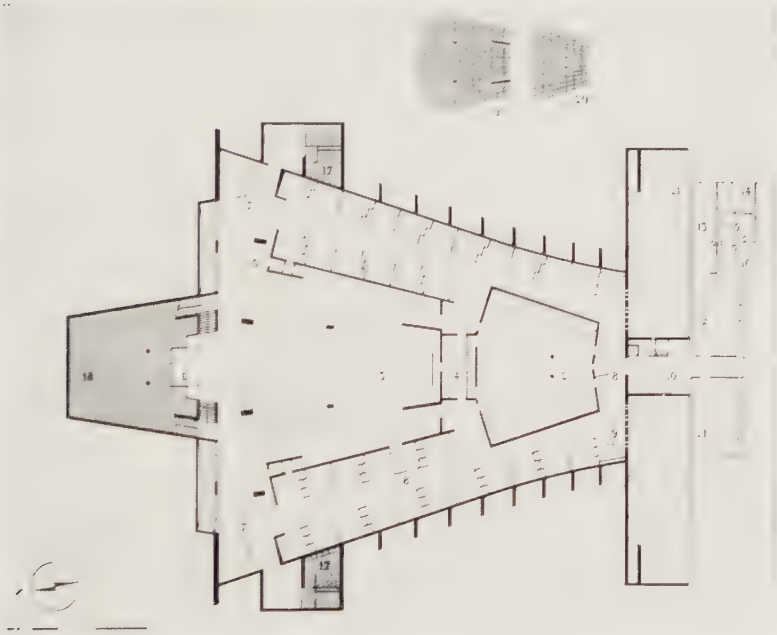
The most dramatic changes in the design of the church are revealed in a comparison of cross sections and longitudinal sections (see illustrations 84, 1953-54, and 85, 1957). A vertical axis has been established over the altar by opening up the concrete roof trusses with a lantern. This axis further defines the sanctuary space by a cone of natural light. The trapezoidal shape of the interior (as seen



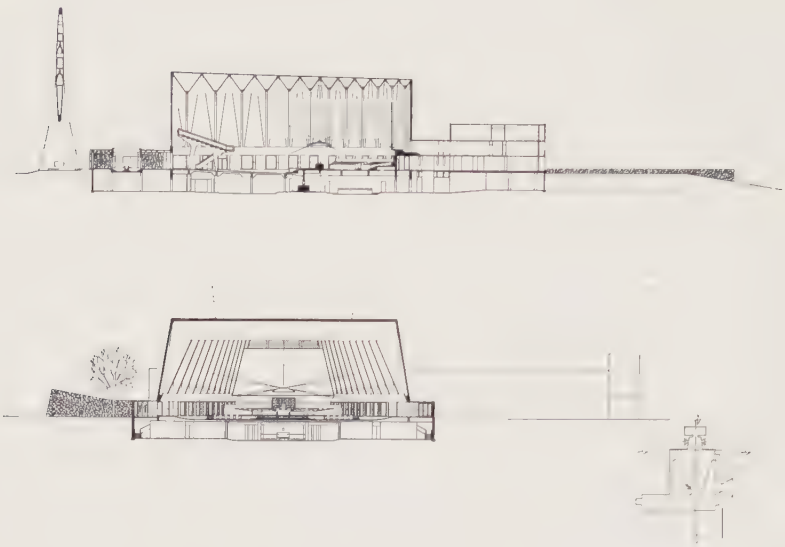
1. Baldachin
2. Organ balcony
3. Link

82. PLAN OF CHURCH, BALCONY LEVEL (1957)

83. PLAN OF LOWER CHURCH (1957)

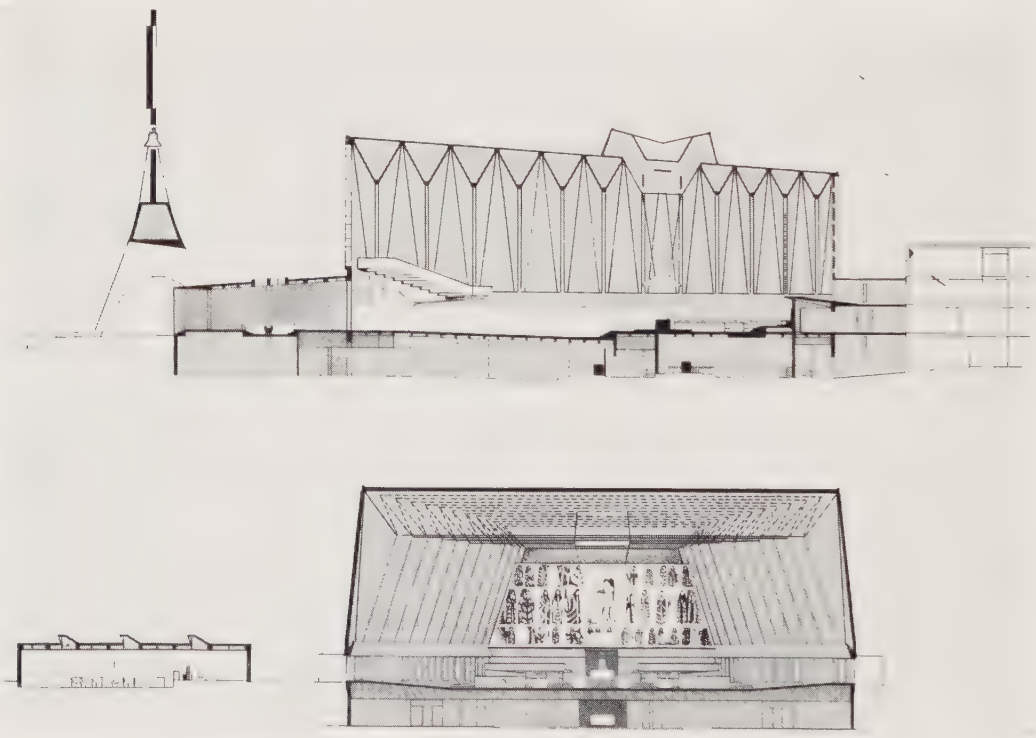


1. Private chapels
2. Brothers' chapel
3. Parish and high school chapel
4. Sacristy
5. Confessionals
6. Crying room
7. Shrines
8. Organ console
9. Lavabos
10. Link
11. Layserver's sacristy
12. Sacristan's storage
13. Flower room
14. Wine storage
15. Host bakery
16. Vault
17. Public rest rooms
18. Mechanical equipment room



84. LONGITUDINAL AND CROSS SECTIONS (1954)

85. LONGITUDINAL AND CROSS SECTIONS (1957)



in cross section) is heightened by the break in the ceiling, and the focal point of the entire church, the altar and its surrounding space, is given greater liturgical and visual meaning. The concrete tension members are carried across the opening so that the continuity of the concrete shell will be preserved. These members will serve as refractors to diffuse light, and they will retain the congregation's sense of the church as a visual enclosure. The surfaces within the lantern will be emphasized with color—gold sides and blue ceiling—while the canopy projecting above the roof line will repeat the folds of the concrete shell. In Romanesque churches (see Conques, illustration 65) and in some Gothic cathedrals such as Laon and Ely, the lantern or tower over the crossing of the nave and transepts increases the natural lighting in the area in front of but not over the altar, augments the vertical thrust of the church, and obviously is an integral part of the play of horizontal and vertical masses as seen from the exterior. At Saint John's the lantern makes the interior disposition of the church meaningful from the outside, but, more important, the lantern is integrated by axis and by light with the altar itself.

Another refinement of design is seen in the slope of the ceiling toward the choir. In the original design (see illustration 84), the top of the roof declined toward the apse, while the under edges of the concrete bents increased in height. The new design augments the pitch of the roof line, and, at the same time, the ceiling becomes gradually lower from façade to choir wall. Visually, this change extends the length of the church and intensifies the desired concentration on sanctuary and altar.

This new design also improves the sequence of spaces as the worshipper enters the church. When the two longitudinal sections are compared (see illustrations 84, 85), it is evident that more attention has been given to the effect of undulations of space. Starting from the façade, the bell banner, which originally rose above the baptistry (see Breuer sketches, illustrations 10, 11) and then was separated from it, now overlaps the atrium-baptistry. The arched vault under the bell banner slopes down over the portico. The roof of the atrium-baptistry then rises to the façade. As the visitor enters the church proper, the balcony reverses his gaze downward. Finally as he proceeds down the church, the impact of the lantern and the repetition of the concrete bents focuses attention on the sanctuary

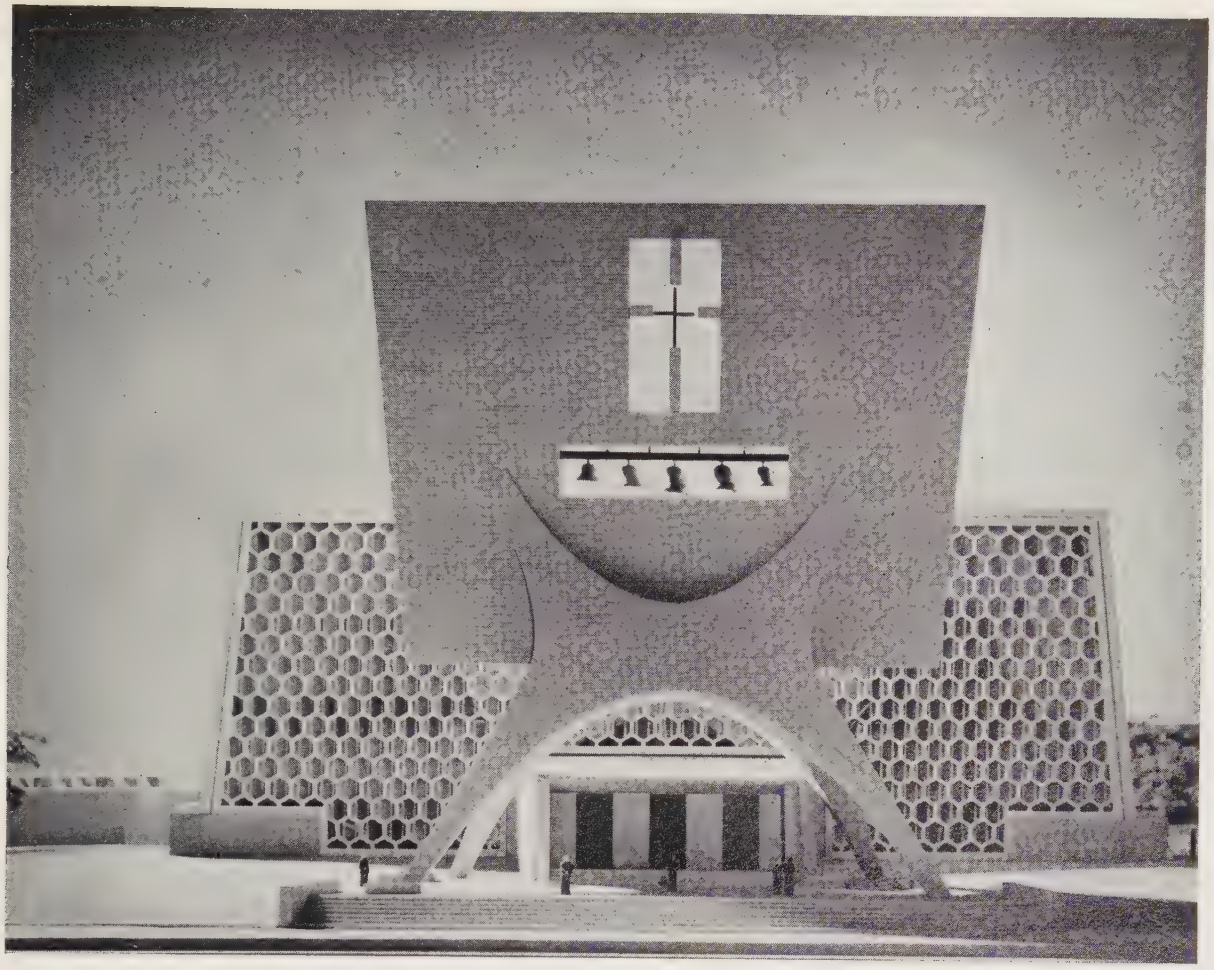
and the choir screen. This rhythmical sequence of down, up, down, up, down is more consistently and subtly articulated in the new design.

Changes in materials and colors grew out of the reactions of both client and architect to the new monastic wing. For ease of maintenance, warm red floor tiles will replace brick floors under the pews. Concrete, bushhammered piers instead of granite ones will support the church envelope, while granite bearing walls will uphold the ribbed, concrete ceilings of baptistry and chapter house. The side walls of the church interior will be painted white, while the ceiling will be left the gray-ochre of natural concrete. Color will be concentrated inside the lantern and on the choir screen.

Heating plans for the church have evolved out of experience with three systems employed in the monastic wing: radiant heating in the main lobby, hot air for the first two floors, and hot water for the upper two floors. The new plans call for low-temperature radiant heating by hot water in the floor, supplemented by warm air around the periphery of the church. Recirculating fans concealed in the roof trusses will drive hot air downward, while exhaust fans vented to the outside will cool the church in summertime. This combination of heating and ventilating systems will compensate for the sluggishness of radiant heating and will allow for a complete change of air every two hours.

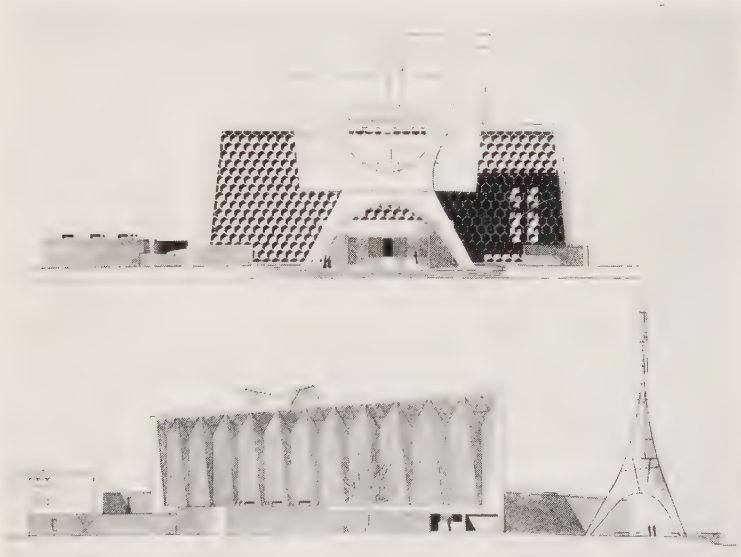
From the exterior (see illustrations 86, 87, 88, 89) the changes of design include different uses of materials with resulting textural interests and refinement of apertures. The bell banner, both a distinctive landmark sustaining the cross and a visual symbol that will identify the new Saint John's Abbey, resembles closely the design submitted to the monks in December, 1956. The void for the five bells is slightly larger, as is the void for the cross. The bell banner, a slab cantilevered from an arched support which is in turn cantilevered from its foundations below ground, will be painted white and will reflect the sun's rays into the church. The subtle evolution of its form can be seen when preliminary designs are contrasted with subsequent projects (see illustrations 11, 70, 78, 86, 87).

The façade of the church no longer consists of concrete members framing rectangles and squares of glass (see illustration 70). Instead, hexagonal precast concrete units filled with glass animate the wall, and reflections cast by the bell banner will give it an ever-changing vitality (see illustrations 86, 87). The glass,



86. NEW MODEL FROM THE NORTH

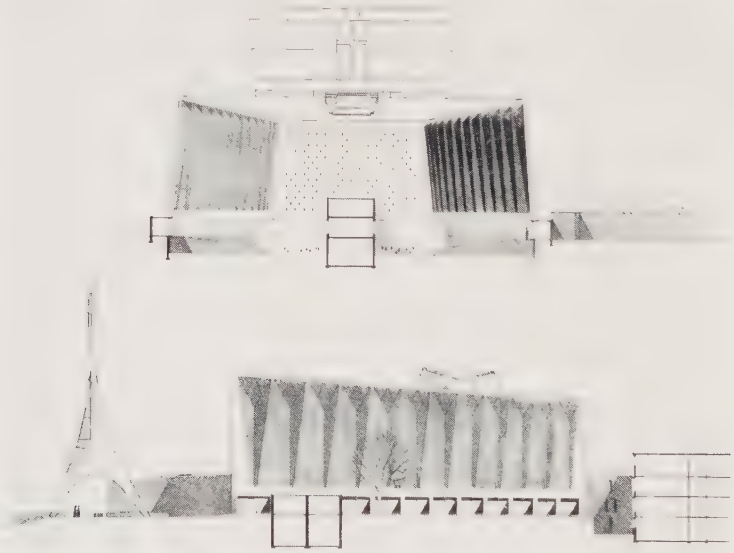
87. NORTH AND EAST ELEVATIONS (1957)





88. NEW MODEL FROM THE SOUTHEAST

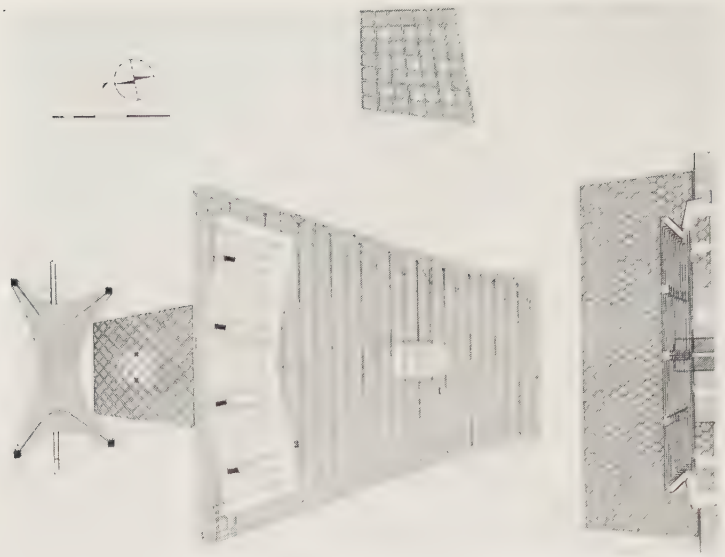
89. SOUTH AND WEST ELEVATIONS (1957)



varying in hue, intensity, and value, will be translucent at the edges graded toward transparency in the middle, allowing views of the bell banner from the interior. This over-all screen façade, contained within its concrete frame, repeats the shape of the bell banner in reverse and acts as a textural foil for the smoother surfaces of the bell banner. The new design more clearly defines the shape of the interior volume and, at the same time, proclaims its role as a nonstructural screen transmitting colored light into the church.

From the sides (east and west, see illustrations 87, 88, 89) the canopy over the lantern will be visible from a distance. Instead of exposed concrete along the accordion-shaped sides, split-faced granite blocks over insulating material will cover the concrete. Experience with the use of this local material in the new monastic wing proved the blocks both practically and aesthetically successful. The dimensions of the unit block will be increased, and greater selectivity in the colors of the granite will be exercised. The exposed concrete frame around the outside will set off the covered bents and will present a textural and coloristic contrast to the granite facing. Further, this concrete frame around the periphery of the sides of the church ties in with the frame around the hexagonal units on the façade and the cast blocks on the south or choir side (see illustration 89). The south side of the church will be constructed of precast concrete blocks with the wall predominating. Small deep reveals will allow some diffused light to enter the church. This light will be filtered by the choir screen. Greater continuity and consistency of design between all four elevations of the church has been achieved (compare old model, illustration 59, 61).

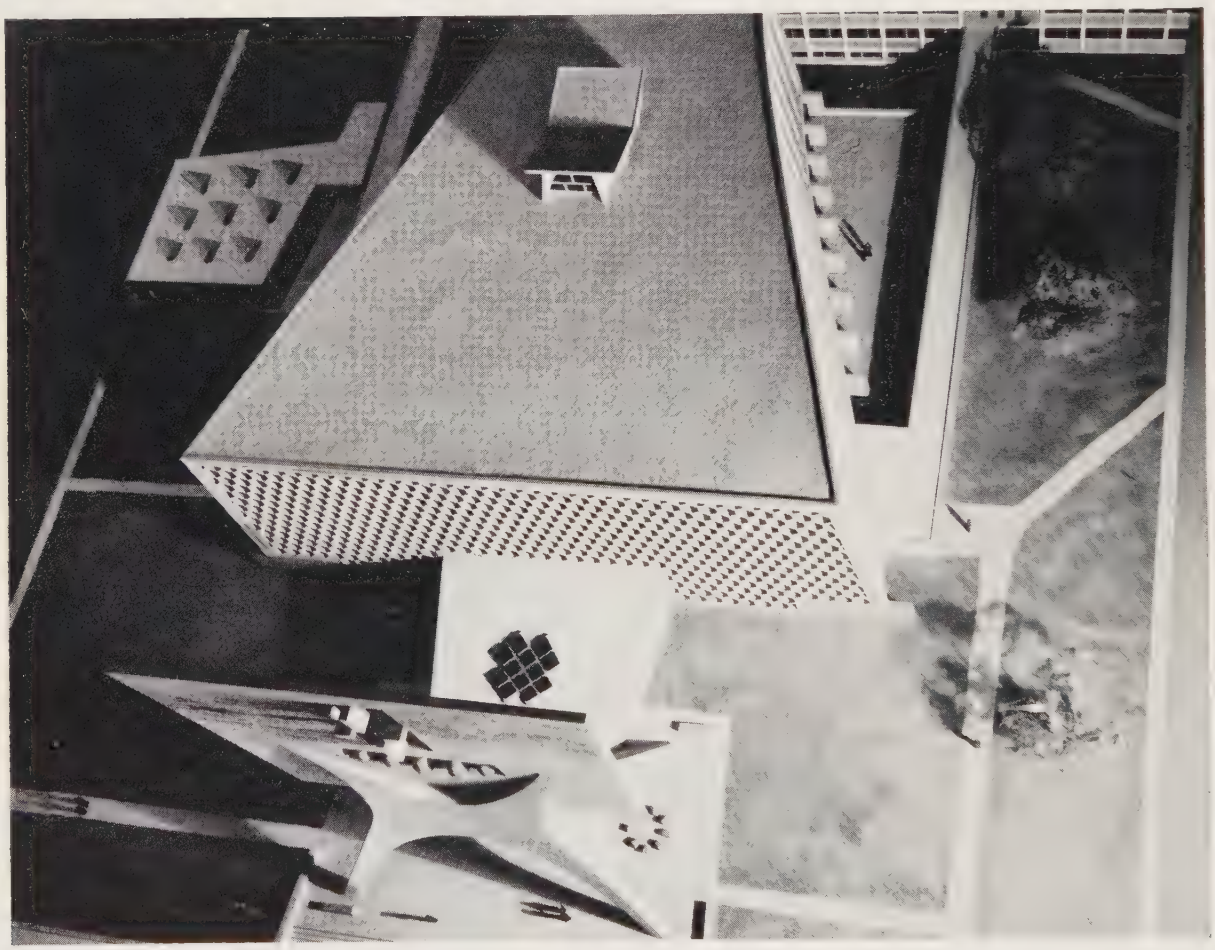
The reflected ceiling plan (see illustration 90) portrays the nature of the roof construction of baptistry, chapter house, and church and also exhibits the design of the roof perforations. The ceilings of both baptistry and chapter house are constructed of ribbed concrete, with interstices occasionally eliminated for light. In the atrium-baptistry, the twelve openings concentrate light on the baptismal font, while in the chapter house the scattered apertures give general illumination. The white underside of the cantilevered balcony plays against the accordion-shaped roof trusses of unpainted concrete. The lantern over the altar breaks a hole in the roof, but the necessary retention of structural members preserves the continuity of the rhythmic shapes of the ceiling.



90. REFLECTED CEILING PLAN (1957)

1. Lantern
2. Main balcony reflected plan

91. NEW MODEL





The new series of designs for the church complex has been accepted by the monks of Saint John's. The next stage in the project will be the making of working drawings and the signing of contracts; ground is to be broken in the spring of 1958. This whole process of cooperative refinement will continue until the moment when blueprints have to be made. The Saint John's church project reflects in striking terms the fact that creativity in architecture is not a product of a static moment in time. The initial plans (1953-54) have undergone a "sea change" in the cooperative interplay between architect and client—and it is in this process of cooperation and change that the design for the Abbey church at Saint John's has found its vitality and will achieve in the near future its final form.

Due
MY

NA
5235 S[illegible]
.C6S8

P7-DDE-162